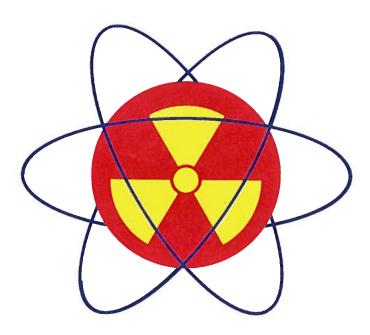
DEEOIC BASIC CE COURSE

Resource Book May 2004



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DOE Covered Facility List

(From Federal Register of Friday, December 27, 2002)

DEPARTMENT OF ENERGY

Energy Employees Occupational Illness Compensation Act of 2000; Revision to List of Covered Facilities

AGENCY: Department of Energy. **ACTION:** Notice of revision of listing of covered facilities.

SUMMARY: On January 17, 2001, and again on June 11, 2001, the Department of Energy ("Department" or "DOE") published a list of facilities covered under the Energy Employees Occupational Illness Compensation Act of 2000 ("Act"), title 36 of Public Law 106-398. (66 FR 4003; 66 FR 31218). The Act establishes a program to provide compensation to individuals who developed illnesses as a result of their employment in nuclear weapons production-related activities and at certain federally-owned facilities in which radioactive materials were used. This notice revises the previous lists and provides additional information about the covered facilities, atomic weapons employers, and beryllium vendors. The original notice provides detailed background information about this matter

FOR FURTHER INFORMATION CONTACT: Office of Worker Advocacy, 1–877–447–9756.

ADDRESSES: The Department welcomes comments on this list. Individuals who wish to suggest additional facilities for inclusion on the list or indicate why one or more facilities should be removed from the list should provide information to the Department. Comments should be addressed to: Office of Worker Advocacy (EH-8), U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585. Email: worker_advocacy@eh.doe.gov. Tollfree: 1-877-447-9756.

URL: http://tis.eh.doe.gov/advocacy/.
SUPPLEMENTARY INFORMATION:

Purnose

The Energy Employees Occupational Illness Compensation Act of 2000 ("Act"), title 36 of Public Law 106–398, establishes a program to provide compensation to individuals who

developed illnesses as a result of their employment in nuclear weapons production-related activities and at certain federally-owned facilities in which radioactive materials were used. On December 7, 2000, the President issued Executive Order 13179 ("Order") directing the Department of Energy ("Department" or "DOE") to list covered facilities in the Federal Register, which the Department did on January 17, 2001. and again on June 11, 2001. This notice revises the previous lists and provides additional information about the covered facilities, atomic weapons employers, and beryllium vendors. Section 2. c. iv of the Order instructs the Department to designate, pursuant to sections 3621(4)(B) and 3622 of the Act, atomic weapons employers and additions to the list of designated beryllium vendors. In addition, section 2. c. vii of the Order instructs the Department to list three types of facilities defined in the Act: (1) Atomic weapons employer

facilities, as defined in section 3621(4);

(2) Department of Energy facilities, as defined by section 3621(12); and

(3) Beryllium vendors, as defined by section 3621(6).

Compensation options and mechanisms are defined differently for each of these facility categories. The atomic weapons employer category includes atomic weapons employer facilities in which the primary work was not related to atomic weapons, and consequently these facilities are not commonly known as atomic weapons facilities. Their inclusion in this list is consistent with the Act, and is not intended as a classification for any other purpose.

The list at the end of this notice represents the Departments best efforts to date to compile a list of facilities under these three categories. This listing includes 350 facilities in 42 jurisdictions. It designates 29 additional beryllium vendor facilities, two additional Atomic Weapons Employer facilities and clarifies the status as Department of Energy facility for 13 facilities. The designation of the 29

additional beryllium vendor facilities represents the Departments best efforts to meet its statutory deadline in Pub. L. 106–398 § 3622 which sets a December 31, 2002, deadline for designating additional beryllium vendors.

To assist the public in understanding changes made in this list, the Department has prepared a description of these changes and made it available at the website noted. A copy may also be obtained by request to the Office of Worker Advocacy. The Department is continuing its research efforts, and continued revisions to this list should be expected. The public is invited to comment on the list and to provide additional information.

In addition to continuing its research efforts, the Department has developed information dissemination mechanisms to make facility-specific data available to the public. Information about each listed facility, including the dates and type of work done there, is available by contacting the Office of Worker Advocacy. These descriptions are available in print form and also electronically (via the World Wide Web at http://tis.eh.doe.gov/advocacy/). The list that follows covers facilities under the three categories of employers defined by the Act: atomic weapons employers ("AWE"), Department of Energy facilities ("DOE"), and beryllium vendors ("BE"). Each of the categories has been defined in the original notice

1. Atomic Weapons Employers and Atomic Weapons Employer Facilities The lines between research, atomic weapons production, and non-weapons production are often difficult to draw. For the purposes of this notice, and as directed by the Act, only those facilities whose work involved radioactive material that was connected to the atomic weapons production chain are included. This includes facilities that received radioactive material that had been used in the production of an atomic weapon, or the back end of the production cycle, such as waste handling or reprocessing operations. For the purposes of this listing, the Department considers commercial nuclear fuel fabrication facilities to be covered facilities for those periods when they either supplied radioactive materials to the Department or received radioactive materials that had been used in the Departments production reactors. Corporate information regarding many of the listed facilities is often not readily available. The Department welcomes comments or additional information regarding facilities that may have supported atomic weapons production that are not on this list, as well as information that clarifies the work done at facilities named below.

2. Department of Energy Facilities

The listing of Department of Energy facilities is only intended for the context of implementing this Act and does not create or imply any new Departmental obligations or ownership at any of the facilities named on this list.

3. Beryllium Vendors and Beryllium Vendor Facilities

Section 3621(6) of the Act defines beryllium vendor as the following:

"(A) Atomics International.

(B) Brush Wellman, Incorporated, and its predecessor, Brush Beryllium Company.

(C) General Atomics.

(D) General Electric Company.

(E) NGK Metals Corporation and its predecessors, Kawecki-Berylco, Cabot

Corporation, BerylCo, and Beryllium Corporation of America.

(F) Nuclear Materials and Equipment Corporation.

(G) StarMet Corporation, and its predecessor, Nuclear Metals, Incorporated.

(H) Wyman Gordan, Incorporated.

(I) Any other vendor, processor, or producer of beryllium or related products designated as a beryllium vendor for purposes of this title under Section 3622."

The list identifies facilities that processed, produced, or provided beryllium metal for the Department, as defined by the Act.

Jurisdiction and facility name	Location	Facility type	State
L— Southern Research Institute	Birmingham	AWE	Alabama.
L— Speedring, Inc	•		
L— Speeding, incL— Speeding, incL— Tennessee Valley Authority			
K— Amchitka Nuclear Explosion Site			
· · · · · · · · · · · · · · · · · · ·			
C— Project Chariot Site Cape	_ ' _ '	· · · · · · · · · · · · · · · · · · ·	
A— Arthur D. Little Co			
A— Atomics International			
— California Research Corp			
A— Ceradyne, Inc	_		
\— Ceradyne, Inc			
A— City Tool & Die MFG			
\— C.L. Hann Industries	San Jose		
A— Dow Chemical Co	Walnut Creek		
\— EDM Exotics	Hayward	BE	. California.
A— Electro Circuits, Inc	Pasadena	AWE	California.
A— Electrofusion	Fremont	BE	. California.
- Energy Technology Engineering Center (ETE	C) Santa Susana, Area IV	DOE	. California.
— General Atomics		AWE BE DOE	California.
— General Electric Vallecitos			California.
— Hafer Tool		BE	. California.
— Hexcel Products			
— Hunter Douglas Aluminum Corp			
— Jerry Carroll Machining			
— Lab. for Biomedical & Environmental Sciences			
	3		
Lab. for Energy-Related Health Research			
Lab. of Radiobiology and Environmental Healt			
— Lawrence Berkeley National Laboratory			
— Lawrence Livermore National Laboratory			
Lebow			
— Philco-Ford			
— Pleasanton Tool & Manufacturing			
— Poltech Precision			
Robin Materials	Mountain View		
Ron Witherspoon, Inc			
- Sandia Laboratory, Salton Sea Base	Imperial County	DOE	. California.
- Sandia National Laboratories Livermore		DOE	. California.
— Stanford Linear Accelerator	Palo Alto	DOE	. California.
— Stauffer Metals, Inc		AWE	California.
— Tapemation			. California.
— University of California	-		
O— Coors Porcelain			
O— Grand Junction Operations Office			
— Project Rio Blanco Nuclear Explosion Site			
D— Project Rulison Nuclear Explosion Site	Grand Valley		. Colorado.

Jurisdiction and facility name	Location	Facility type	State
CO— Rocky Flats Plant	Golden	DOE	Colorado.
CO— Shattuck Chemical	_		Colorado.
CO— University of Denver Research Institute			Colorado.
CT— American Chain and Cable Co			Connecticut.
CT— Anaconda Co			Connecticut.
CT— Bridgeport Brass Co., Havens Laboratory	Bridgeport	AWE	Connecticut.
CT— Combustion Engineering	Windsor	AWE DOE	Connecticut.
CT— Connecticut Aircraft Nuclear Engine Laborato	ory Middletown	BE DOE	Connecticut.
CT— Dorr Corp	Stamford	AWE	Connecticut.
CT— Fenn Machinery		AWE	Connecticut.
CT— Machlett Laboratories		BE	Connecticut.
	0		
CT— New England Lime Co	_		Connecticut.
CT— Seymour Specialty Wire	Seymour		Connecticut.
CT— Sperry Products, Inc	Danbury	AWE	Connecticut.
CT— Torrington Co	Torrington	AWE	Connecticut.
DE— Allied Chemical and Dye Corp	North Claymont	AWE	Delaware.
DC— National Bureau of Standards			District of Columbia
	9		District of Columbia
DC— Naval Research Laboratory			
FL— American Beryllium Co			Florida.
FL— Armour Fertilizer Works	Bartow	AWE	Florida.
FL— Gardinier, Inc	Tampa	AWE	Florida.
FL- International Minerals and Chemical Corp	Mulberry	AWE	Florida.
FL— Pinellas Plant			Florida.
			Florida.
FL— University of Florida			7 7 7
FL— Virginia-Carolina Chemical Corp			Florida.
FL— W.R. Grace Co., Agricultural Chemical Div	Ridgewood		Florida.
HI— Kauai Test Facility	Kauai	DOE	Hawaii.
ID— Argonne National Laboratory—West	Scoville	DOE	Idaho.
ID— Idaho National Engineering Laboratory			Idaho.
			Idaho.
ID— Northwest Machining & Manufacturing			
IL— Allied Chemical Corp Plant			Illinois.
IL— American Machine and Metals, Inc	E. Moline	AWE	Illinois.
IL— Argonne National Laboratory—East	Argonne	DOE	Illinois.
IL— Armour Research Foundation		AWE	Illinois.
IL— Blockson Chemical Co	9		Illinois.
			Illinois.
IL— C–B Tool Products Co		AWE	
IL— Crane Co		AWE	Illinois.
IL— ERA Tool and Engineering Co	Chicago		lowa.
IL— Fansteel Metallurgical Corp	North Chicago	BE	Illinois.
IL— Fermi National Accelerator Laboratory		DOE	Illinois.
IL— Granite City Steel			Illinois.
			Illinois.
IL— Great Lakes Carbon Corp			
IL— GSA 39th Street Warehouse			Illinois.
IL— International Register	Chicago	AWE	Illinois.
IL— Kaiser Aluminum Corp			Illinois.
IL— Lindsay Light and Chemical Co			Illinois.
IL— Madison Site (Spectrulite)			Illinois.
			Illinois.
,			
IL— Midwest Manufacturing Co			Illinois.
L— Museum of Science and Industry			Illinois.
IL— National Guard Armory	Chicago	AWE DOE	Illinois.
IL— Podbeliniac Corp			Illinois.
IL— Precision Extrusion Co			Illinois.
		AWE	Illinois.
L— Quality Hardware and Machine Co			
IL— R. Krasburg and Sons Manufacturing Co		AWE	Illinois.
IL— Sciaky Brothers, Inc	Chicago	AWE	Illinois.
IL— Swenson Evaporator Co	· -	AWE	Illinois.
L— W.E. Pratt Manufacturing Co			Illinois.
			Illinois.
	•		
IN— American Bearing Corp			Indiana.
IN— Dana Heavy Water Plant			Indiana.
IN— General Electric Plant		AWE	Indiana.
IN— Joslyn Manufacturing and Supply Co			Indiana.
N— Purdue University			Indiana.
IN— Wash-Rite			Indiana.
IA— Ames Laboratory	Ames	DOE	lowa.

Ju	risdiction and facility name	Location	Facility type	State
- Bendiy	Aviation (Pioneer Division)	. Davenport	AWE	lowa.
	rdnance Plant			lowa.
	letals	•		lowa.
	er Chemical Co., Jayhawk Works			Kansas.
	ah Gaseous Diffusion			Kentucky.
•	orp			Louisiana.
	Rustless Iron & Steel	Baltimore		Maryland.
)— W.R. G	race and Company	Curtis Bay		Maryland.
A— Americ	an Potash & Chemical	West Hanover	AWE	Massachusetts
- C.G. S	argent & Sons	Graniteville	AWE	Massachusetts
	an Valve	Indian Orchard		Massachusetts
	on Germeshausen & Grier, Inc	Boston		Massachusetts
-	, Inc	Ashland		Massachusetts
	n Institute	Boston		Massachusetts
	Machine Co	Worcester		Massachusetts
	te Machine and Tool Co	Hudson		Massachusetts
— Massad	chusetts Institute of Technology	Cambridge	AWE BE	Massachusetts
- Metals	and Controls Corp	Attleboro	AWE	Massachusetts
- Nationa	al Research Corp	Cambridge	AWE	Massachusetts
	Co	Worcester		Massachusetts
	r Metals. Inc	Concord		Massachusetts
	Rolled Thread Co	Worcester		Massachusetts
	Landfill			
		Norton		Massachusetts
	Corporation	Beverly		Massachusetts
	own Arsenal	Watertown		Massachusetts
.— Winche	ster Engineering & Analytical Center	Winchester	DOE	Massachusetts
	Landfill	Woburn	AWE	Massachusetts
- Wymar	Gordon Inc	Grayton, North Grafton	BE	Massachusetts
	ark Plug	Flint	AWE BE	Michigan.
	Perkins Co			Michigan.
	ort Brass Co	•		Michigan.
				•
	Beryllium Co			Michigan.
	y Co			Michigan.
	d Metals Co			Michigan.
Gerity-N	۸ichigan Corp			Michigan.
Mitts &	Merrel Co	Saginaw	AWE	Michigan.
 Oliver C 	Corp	Battle Creek	AWE	Michigan.
Revere	Copper and Brass	Detroit	AWE BE	Michigan.
	ing Systems, Inc		BE	Michigan.
- '	tter Corp	_		Michigan.
	ity of Michigan			Michigan.
	ne Tube Division			Michigan.
	er Reactor	Elk River		Minnesota.
— Salmon	Nuclear Explosion Site	Hattiesburg		Mississippi.
	City Plant	Kansas City	DOE	Missouri.
-Latty A	venue Properties	Hazelwood	AWE DOE	Missouri.
	crodt Chemical Co., Destrehan St. Plant	St. Louis		Missouri.
	Co	St. Louis		Missouri.
	ron Co	Joplin		Missouri.
_				
	r Chemical CoSite (SLARS)	Kansas City		Missouri.
	s Airport Storage Site (SLAPS)	St. Louis		Missouri.
•	/alley Powder Farm	St. Louis		Missouri.
— United I	Nuclear Corp	Hematite	AWE	Missouri.
Weldon	Spring Plant	Weldon Spring	DOE	Missouri.
	Sodium Graphite Reactor	Hallam		Nebraska
	Test Site	Mercury		Nevada.
	Faultless Nuclear Explosion Site	Central Nevada Test Site		Nevada.
•	· ·			
	Shoal Nuclear Explosion Site	Fallon		Nevada.
	Mountain Site Characterization Project	Yucca Mountain		Nevada.
Alumiur	n Co. of America (Alcoa)	Garwood	AWE	New Jersey.
 America 	an Peddinghaus Corp	Garwood	AWE	New Jersey.
	nd Williams Co	Newark	AWE	New Jersey.
	ephone Laboratories	Murray Hill		New Jersey.
	eld Tool Co			New Jersey.
	CIU I UUI UU		AVV	INCAN PEIDEA.

	Jurisdiction and facility name	Location	Facility type	State
11_	Callite Tungsten Co	Union City	AWF	New Jersey.
	Chemical Construction Co	Linden		
	Du Pont Deepwater Works	Deepwater		•
-	International Nickel Co., Bayonne Laboratories	Bayonne		
	J.T. Baker Chemical Co	7		
		Philipsburg		
	Kellex/Pierpont			
	Maywood Chemical Works	Maywood		
	Middlesex Municipal Landfill	Middlesex		
	Middlesex Sampling Plant			
IJ	National Beryllia			
IJ—	New Brunswick Laboratory	New Brunswick	DOE	. New Jersey.
J	Picatinny Arsenal	Dover	AWE	New Jersey.
J—	Princeton Plasma Physics Laboratory	Princeton	DOE	 New Jersey.
J	Rare Earths/W.R. Grace	Wayne	AWE DOE	New Jersey.
J	Standard Oil Development Co of NJ	Linden	AWE	New Jersey.
	Stevens Institute of Technology	Hoboken	BE	
	Tube Reducing Co	Wallington		
	U.S. Pipe and Foundry	Burlington		
	United Lead Co			
	Vitro Corp of America (New Jersey)	West Orange		
	Westinghouse Electric Corp (New Jersey)	Bloomfield		
	Wykoff Steel Co	Newark		
	Accurate Machine & Tool	Albuquerque		
	Albuquerque Operations Office	Albuquerque		
M	Chupadera Mesa	Chupadera Mesa		
M	Los Alamos Medical Center	Los Alamos	DOE	. New Mexico.
M	Los Alamos National Laboratory	Los Alamos	DOE	New Mexico.
M-	Lovelace Respiratory Research Institute	Albuquerque	DOE	New Mexico.
М	Project Gasbuggy Nuclear Explosion Site	Farmington	DOE	New Mexico.
	Project Gnome Nuclear Explosion Site	Carlsbad		
	Sandia National Laboratories	Albuquerque		
	South Albuquerque Works	Albuquerque		
	Trinity Nuclear Explosion Site	White Sands Missile Range		
		Carlsbad		
	Waste Isolation Pilot Plant			
	Allegheny-Ludium Steel	Watervliet		
	American Machine and Foundry	Brooklyn		
	Ashland Oil	Tonawanda		
	Baker and Williams Warehouses	New York		
	Bethlehem Steel	Lackawanna		
	Bliss & Laughlin Steel	Buffalo	AWE DOE	New York.
Υ—	Brookhaven National Laboratory	Upton	DOE	New York.
Y—	Burns & Roe, Inc	Maspeth	BE	New York.
Y	Carborundum Company	Niagara Falls		
	Colonie Site (National Lead)	Colonie (Albany)		
	Crucible Steel Co	Svracuse		
	Electro Metallurgical	Niagara Falls		New York.
		New York		
	Environmental Measurements Laboratory			
	Fairchild Hiller Corporation	Farmingdale		
	General Astrometals	Yonkers		
	Hooker Electrochemical	Niagara Falls		
	International Rare Metals Refinery, Inc	Mt. Kisco		
	Ithaca Gun Co	Ithaca		
Υ	Lake Ontario Ordnance Works	Niagara Falls		
Y	Ledoux and Co	New York	AWE	New York.
	Linde Air Products	Buffalo	AWE	New York.
	Linde Ceramics Plant	Tonawanda		
	New York University	New York		
	Peek Street Facility 1	Schenectady		
	Radium Chemical Co	New York		
	Rensselaer Polytechnic Institute	Troy		
	Sacandaga Facility 1	Glenville		
	SAM Laboratories, Columbia University	New York		
	Seaway Industrial Park	Tonawanda	AWE DOE	New York.
Υ—	Seneca Army Depot	Romulus	AWE	New York.

	Jurisdiction and facility name	Location	Facility type	State
NY Sin	nonds Saw and Steel Co	Lockport	AWF	New York.
	aten Island Warehouse	•		New York.
	Ivania Corning Nuclear Corp.—Bayside Lab			New York.
	Ivania Coming Nuclear Corp.—Bayside Lab Ivania Corning Nuclear Corp.— Hicksville Plan			New York.
	anium Alloys Manufacturing	•		New York.
	deau Foundation			New York.
	iversity of Rochester Atomic Energy Project			New York.
	ca St. Warehouse		= :::::::::::::::::::::::::::::::::::::	New York.
′ We	est Valley Demonstration Project	West Valley	AWE DOE	New York.
'— Wo	olff-Alport Chemical Corp	Brooklyn	AWE	New York.
— Ber	ryllium Metals and Chemical Corp	Bessemer City	BE	North Carolina.
— Uni	iversity of North Carolina	. Chapel Hill	BE	North Carolina.
I— Aia	x Magnethermic Corp	. Youngstown	AWE	Ohio.
	oa Craft			Ohio.
	sociated Aircraft Tool and Manufacturing Co			Ohio.
	& T Metals			Ohio.
	ker Brothers			Ohio.
	ttelle Laboratories—King Avenue			Ohio.
	ttelle Laboratories—West Jefferson			Ohio.
	ryllium Production Plant (Brush Luckey Plant) .			Ohio.
	ısh Beryllium Co. (Cleveland)			Ohio.
	ısh Beryllium Co. (Elmore)			Ohio.
H— Bru	ısh Beryllium Co. (Lorain)	Lorain	BE	Ohio.
H Cin	cinnati Milling Machine Co	. Cincinnati	AWE	Ohio.
H Cliff	fton Products Co	. Painesville	BE	Ohio.
H Cor	pperweld Steel	Warren	AWE	Ohio.
	Pont-Grasselli Research Laboratory		AWE	Ohio.
	rusion Plant (Reactive Metals Inc.)			Ohio.
	ed Materials Production Center (FMPC)	_ ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '		Ohio.
	neral Electric Company (Ohio)			Ohio.
				Ohio.
	uen Watch			
	rshaw Chemical Co			Ohio.
	rring-Hall Marvin Safe Co			Ohio.
	rizons, Inc			Ohio.
H— Ket	ttering Laboratory, University of Cincinnati	Cincinnati		Ohio.
⊣— Mag	gnus Brass Co	Cincinnati		Ohio.
H— Mcł	Kinney Tool and Manufacturing Co			Ohio.
Mito	chell Steel Co	. Cincinnati	AWE	Ohio.
I- Mor	nsanto Chemical Co	Dayton	AWE	Ohio.
	und Plant			Ohio.
	nesville Site (Diamond Magnesium Co.)	•		Ohio.
	ua Organic Moderated Reactor	Pigua		Ohio.
	tsmouth Gaseous Diffusion Plant			Ohio.
	W. Leblond Machine Tool Co			Ohio.
				Ohio.
1— Tec	ch-Art, Inc			
	cco Induction Heating Div			Ohio.
	can Tool Co	_ •		Ohio.
_	gle Picher			Oklahoma.
	r-McGee			Oklahoma.
	any Research Center			Oregon.
R Wal	h Chang			Oregon.
— Aer	oprojects, Inc	West Chester	AWE BE	Pennsylvania.
	quippa Forge		AWE DOE	Pennsylvania.
	minum Co of America (Alcoa) (Pennsylvania) .		AWE	Pennsylvania.
	yllium Corp. of America (Hazleton)			Pennsylvania.
	yllium Corp. of America (Reading)			Pennsylvania.
	dsboro Steel & Foundry	•		Pennsylvania.
	H. Schnoor			Pennsylvania.
				_ *
	rnegie Institute of Technology			Pennsylvania.
	penter Steel Co.			Pennsylvania.
	ambersburg Engineering Co			Pennsylvania.
	ote Mineral Co			Pennsylvania.
.— Frai	nkford Arsenal			Pennsylvania.
	anonatali Co	Pittsburgh	AWE	Pennsylvania.
\— Hep	openstall Co	r mood gr		i cilioyivaina.

Jurisdiction and facility name	Location	Facility type	State
A— Koppers Co., Inc	Verona	AWE	. Pennsylvania.
A— Landis Machine Tool Co		AWE	
A— McDanel Refractory Co	Beaver Falls	BE	Pennsylvania.
A— Nuclear Materials and Equipment Corp (NUMEO	C) Apollo	AWE BE	. Pennsylvania.
A— Nuclear Materials and Equipment Corp (NUMEO			
A— Penn Salt Co	Philadelphia/Wyndmoor	AWE	
A— Philadelphia Naval Yard			
A— Shippingport Atomic Power Plant 1	Shippingport	DOE	
A— Superior Steel Co			
A— U.S. Steel Co., National Tube Division			
A— Vitro Manufacturing (Canonsburg)	Canonsburg	AWE BE	Pennsylvania.
A— Westinghouse Atomic Power Dev. Plant			
A— Westinghouse Nuclear Fuels Division			•
R— BONUS Reactor Plant		DOE	
R— Puerto Rico Nuclear Center	Mayaguez	DOE	. Puerto Rico.
I— C.I. Hayes, Inc			
C— Savannah River Site		DOE	. South Carolina.
N— Clarksville Facility	Clarksville		
N— Manufacturing Sciences Corp		BE	
N- Oak Ridge Gaseous Diffusion Plant (K-25)			
N— Oak Ridge Hospital			
N— Oak Ridge Institute for Science Education			. Tennessee.
N— Oak Ridge National Laboratory (X-10)			
N— S-50 Oak Ridge Thermal Diffusion Plant			
N— Vitro Corporation of America (Tennessee)			
N— W.R. Grace (Tennessee)			
N Y-12 Plant			
K— AMCOT			
K— Mathieson Chemical Co			
X— Medina Facility			
X— Pantex Plant		DOE	. Texas.
X— Sutton, Steele and Steele Co			
K— Texas City Chemicals, Inc			
4 BWXT			
A— Thomas Jefferson National Accelerator Facility			
A— University of Virginia			9
A— Hanford			•
A—Pacific Northwest National Laboratory			
V— Huntington Pilot Plant			•
I— Allis-Chalmers Co			
I— A.O. Smith			
I— Besley-Wells			
I— LaCrosse Boiling Water Reactor			
I— Ladish Co			
R— Pacific Proving Ground 2	•	DOE	

¹ Consistent with the Act, coverage is limited to activities not performed under the responsibility of the Naval Nuclear Propulsion program. ² Pacific Proving Ground includes Bikini Atoll, Enewetak Atoll, Johnston (U.S. nuclear weapons testing activities only), and Christmas Island (U.S. nuclear weapons testing activities only).

	Resource	Daale
IL.PA	Resource	DOOK

Appendix A

SELECTED FACILITIES

The facilities below are referenced in the DEEOIC Basic CE Training Course:

Albany Research Center

Also Known As: ARC

Also Known As: U.S. Bureau of Mines

Also Known As: Albany Metallurgical Research Center

Also Known As: Oregon Metallurgical Corp.

State: Oregon Location: Albany

Time Period: AWE 1948-1978; DOE 1987-1993 (remediation) **Facility Type:** Atomic Weapons Employer Department of Energy

Facility Description: From 1948-1978, the Bureau of Mines conducted metallurgical research at the Albany Research Center for the AEC and ERDA. Beginning in 1955, the site performed research on alloys of uranium and thorium under an AEC contract. Metallurgical operations also included melting, machining and welding. Documentation indicates that the Oregon Metallurgical Corp. possessed production quantities of radioactive materials for work requested by National Lead of Ohio in November 1958.

The <u>Albany Research Center</u> continues as a DOE materials research center under the Office of Fossil Fuels.

Aluminum Co. of America (Alcoa) (Pennsylvania)

Also Known As: Aluminum Research Laboratories

Also Known As: New Kensington Works (of ALCOA) on Pine and 9th Sts

State: Pennsylvania Location: New Kensington

Time Period: 1944-1945

Facility Type: Atomic Weapons Employer

Facility Description: The Aluminum Company of America (Alcoa) site in New Kensington, Pennsylvania was one of 14 facilities in the early 1940s that produced nuclear fuel for the X-10 pilot plant reactor in Oak Ridge, Tennessee and the production reactors at Hanford, Washington. Alcoa used a unique welding process to "can" and seal uranium slugs produced by these other facilities.

Aliquippa Forge

Also Known As: Vulcan Crucible Steel Co. Also Known As: Universal Cyclops, Inc. State: Pennsylvania Location: Aliquippa

Time Period: AWE 1947-1950; DOE 1988 (remediation)

Facility Type: Atomic Weapons Employer Department of Energy

Facility Description: In the late 1940s, Aliquippa Forge (previously Vulcan Crucible) was a supplier of rolled uranium rods used in Hanford's reactors. The AEC operated a rolling mill, two furnaces and cutting and extrusion equipment at Vulcan. Work at the site ended in 1950. Although this site was designated as part of the Formerly Utilized Site Remediation Action Program (FUSRAP) in 1983, the only year in which remediation work took place was in 1988. This work was performed under the Bechtel National Inc. umbrella contract for DOE site environmental remediation.

Allied Chemical Corp. Plant

Also Known As: General Chemical Division

State: Illinois Location: Metropolis

Time Period: 1959-1976

Facility Type: Atomic Weapons Employer

Facility Description: After World War II, many companies working for the United States Government produced UF6 feed for uranium enrichment and diffusion plants. The Allied Plant in Metropolis, IL was completed and initial deliveries began sometime in 1959. In 1962, several feed plants were shut down and the privately-owned Allied Chemical Company Plant in Metropolis, IL, took over the conversion of U3O8 to UF6. This plant produced approximately five thousand tons of uranium hexafloride feed for the Paducah Gaseous Diffusion Plant per year. It was shut down in 1964. Though it later reopened, it is not clear that any material after this date was used in the Atomic Weapons Production Process.

Amchitka Island Nuclear Explosion Site

Also Known As: Amchitka Island Test Center Also Known As: Amchitka Island Test Site State: Alaska Location: Amchitka Island

Time Period: 1965-1972; 1995-present (remediation)

Facility Type: Department of Energy

Facility Description: Amchitka Island was used as a test site for three underground nuclear detonations.

For the Long Shot detonation, drilling began in May 1964. The shot was fired on October 29, 1965, and the operation ended in November 1965.

For the Milrow detonation, drilling began March 9, 1967. The shot was fired on October 2, 1969. No drillback operations took place and the operation ended in November 1969.

For the Cannikin detonation, drilling began August 1967. The shot was fired on November 6, 1971, drillback operations began November 1971, and was completed with the demobilization of drilling equipment on February 23, 1972.

Armour Fertilizer Works
Also Known As: U.S. Agri-Chemicals Pilot Facility
Also Known As: U.S. Steel Corp.
State: Florida Location: Bartow Time Period: 1951-1955
Facility Type: Atomic Weapons Employer
Facility Description: Under contract with the AEC, Armour operated a pilot plant which produced uranium from phosphoric acid.

B & T Metals
State: Ohio Location: Columbus
Time Period: 1943
Facility Type: Atomic Weapons Employer
Facility Description: During the early stages of nuclear weapons production, uranium reactor fuel was produced by a variety of metallurgical techniques including extrusion, casting, and machining. In February 1943, DuPont, acting as an agent of the Manhattan Engineer District, contracted B&T Metals to extrude rods from uranium metal billets for the Hanford reactor in Washington State. B&T Metals extruded an estimated 50 tons of uranium between March 1943 and August 1943.

Battelle Laboratories - King Avenue

Also Known As: Battelle Columbus Laboratories (BCL)
Also Known As: Battelle Memorial Institute (BMI)

State: Ohio Location: Columbus

Time Period: AWE 1943-1986; BE 1947-1961; DOE 1986-2000

Facility Type: Atomic Weapons Employer Beryllium Vendor Department of Energy

Facility Description: From 1943 to 1986, Battelle Memorial Institute performed atomic energy research and development as well as beryllium work for the Department of Energy and its predecessor agencies. The Battelle Laboratories have two separate locations in Columbus - King Avenue and West Jefferson. Battelle's research supported the government's fuel and target

fabrication program, including fabrication of uranium and fuel elements, reactor development,
submarine propulsion, fuel reprocessing, and the safe use of reactor vessels and piping.
The following activities were performed at the King Avenue location: processing and machining
enriched, natural, and depleted uranium and thorium; fabricating fuel elements; analyzing
radiochemicals; and studying power metallurgy. Beryllium work was conducted from 1947 until at
least 1961.

Beryllium Metals and Chemical Corp.

Also Known As: BERMET

State: North Carolina Location: Bessemer City

Time Period: 1963-1969

Facility Type: Beryllium Vendor

Facility Description: Purchase orders from Y-12 indicate that Beryllium Metals and Chemical Corp. (BERMET) did some beryllium work for Y-12, beginning in 1963 and continuing at least through 1965. Beyond that, records indicate BERMET was responsive to an invitation to submit 100 pounds of beryllium metal to the AEC in 1968 for purposes of qualifying for further work, as part of the AEC's beryllium metal study group. According to a May, 1969 memo, BERMET chose not to participate beyond this initial 100 pound qualifying round.

Brookhaven National Laboratory

State: New York Location: Upton Time Period: 1947-present

Facility Type: Department of Energy

Facility Description: Brookhaven National Laboratory (BNL) is the former site of a U.S. Army installation (Camp Upton) and has been involved in research and development activities in support of the Department of Energy (DOE) and its predecessor agencies since 1947. BNL's facilities conduct basic and applied research in high energy and nuclear physics and in other areas of science. Throughout the course of its operations, the potential for beryllium exposure existed at this site, due to beryllium use, residual contamination, and decontamination activities.

CONTRACTORS:Brookhaven Science Association (Battelle Memorial Institute and State University of New York at Stony Brook)(1998-Present); Associated Universities, Incorporated (1947-1998)

Brush Beryllium Co. (Cleveland)

Also Known As: Brush Wellman Co. Also Known As: Motor Wheel Corp. Also Known As: Magnesium Reduction

State: Ohio Location: Cleveland

Time Period: AWE 1942-1943;1949-1953 BE 1943-1967 **Facility Type:** Atomic Weapons Employer Beryllium Vendor

Facility Description: The Brush Cleveland facility conducted research on a process for producing uranium metal (1942-1943) through magnesium reduction of molten green salt (uranium tetrafloride). The facility later conducted research and development with uranium (1949-1953) and extruded thorium billets into slugs which were placed in Hanford production reactors (1952-1953). The Brush Cleveland facility also produced beryllium metal and beryllium oxide for the MED (1943-1946) and later for the AEC (1947-1965?).

Brush Beryllium Co. (Elmore)

State: Ohio Location: Elmore Time Period: 1957-2001

Facility Type: Beryllium Vendor

Facility Description: Brush Beryllium plant in Elmore, OH, was built in 1953. It began producing beryllium for the AEC in 1957 after operations at the Brush Luckey, OH, facility ended. (Prior to 1957 it produced beryllium for the commercial market only.) The plant supplied beryllium to the Y-12 plant in 1990 and Brush purchase orders show that shipments from its Elmore location continued to Los Alamos and Sandia through April 2001.

Ceradyne, Inc.

State: California Location: Costa Mesa

Time Period: 1990-1996

Facility Type: Beryllium Vendor

Facility Description: Ceradyne sold beryllium-graphite composite materials to the Y-12 plant in

Oak Ridge between 1990 and 1996.

Ceradyne, Inc.

State: California Location: Santa Ana

Time Period: 1977-1988

EEOICPA Resource Book	Appendix B
Facility Type: Beryllium Vendor	
Facility Description: Ceradyne provided beryllium parts, and possi	ibly powder, to the Y-12 plant.
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Clifton Products Co.	
State: Ohio Location: Painesville Time Period: 1940-1952 Facility Type: Beryllium Vendor	
Facility Description: In the 1940's, Clifton had at least six large corberyllium products. By 1949, at least 8 beryllium-related deaths had	11 2
******************	****
Coors Porcelain	
Also Known As: Coors Ceramic State: Colorado Location: Golden Time Period: 1947-1975 Facility Type: Beryllium Vendor	
Facility Description: Coors Porcelain performed beryllium work for Commission. An early AEC document makes reference to Coors Porcelain Deryllium work during the period from 1947-1948. Coors Porcelain Clinton Engineer Works but it is unclear whether beryllium was inverse from 1957 through 1964, the company worked with Lawrence Liver Project Pluto, a project undertaken to determine the feasibility of using energy source for ramjet engines. Coors developed fuel elements from project, which began in 1957 and ended in 1964. Coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed other beryllium work for DOE after the coors Porcelain performed the performed perfo	breelain's involvement in had an earlier contract with the colved. Ermore National Laboratory on ing heat from reactors as the om beryllium ceramics for the completion of Project Pluto. A duced beryllia ceramics though
·*************************************	****
Crane Co.	
State: Illinois Location: Chicago	

Time Period: 1947-1949

Facility Type: Atomic Weapons Employer

Facility Description: Crane Co. supplied the Atomic Energy Commission with uranium and thorium in the 1940s (and perhaps in the 1950s) and likely used materials containing uranium in manufacturing valves for the AEC. At the completion of one project in 1949, 1000 pounds of contaminated wastes, including 346 grams of uranium, were shipped from Crane to Oak Ridge. In 1949, Crane also shipped 265 kg of normal uranium to Hanford. In 1954, records indicate government interest in purchasing more uranium and thorium from Crane, but this work has not been verified.

Dana Heavy Water Plant

Also Known As: Wabash River Ordance Works

State: Indiana Location: Dana Time Period: 1943-1957

Facility Type: Department of Energy

Facility Description: Most of the heavy water for the U.S. nuclear weapons programs was made at two sites: the Dana Heavy Water Plant and the Savannah River Heavy Water Plant. The Dana Heavy Water Plant was designed and built by the Girdler Corporation (under direction from E.I. du Pont de Nemours and Company) and operated by E.I. du Pont de Nemours and Company. The plant, located in Newport, Indiana, operated until May 1957, and remained on standby until July 1959. The site used a combination of hydrogen sulfide-water chemical exchange, water distillation, and electrolysis processes to make heavy water.

CONTRACTOR: E. I du Pont de Nemours (1952-1957)

Electro Metallurgical

Also Known As: ElectroMet Corp.

Also Known As: Umetco Minerals Corp. Also Known As: Union Carbide Corp.

Also Known As: Electro-Metallurgical Corp. State: New York Location: Niagara Falls

Time Period: 1942-1953

Facility Type: Department of Energy

Facility Description: In 1942, the Electro Metallurgical Company (ElectroMet), a subsidiary of Union Carbide and Carbon Corporation, was contracted by the Manhattan Engineer District to design, engineer, construct, and operate a metal reduction plant. This plant was to take uranium tetrafluoride and convert it to uranium metal.

Developing the technology to produce pure uranium metal was a priority for the Manhattan Project. ElectroMet accomplished this conversion by taking the uranium tetrafluoride received from Union Carbide's Linde Air Products Division and reacting it with magnesium in induction furnaces. Once the metal was created, it was cast into ingots and the ingots were then shipped out for testing or for rolling. The leftover process residues were sent to other sites for uranium recovery, storage, or

disposal. Electromet was also in charge of recasting metal, research and development in low and high-grade uranium ores, and supplying calcium metal to Los Alamos and other laboratories.

Extrusion Plant (Reactive Metals Inc.)

Also Known As: Reactive Metals, Inc.

Also Known As: RMI

State: Ohio Location: Ashtabula

Time Period: 1962-1988; uncertain-present (remediation)

Facility Type: Department of Energy

Facility Description: From 1962 to 1988, <u>Ashtabula</u> (formerly known as Reactive Metals, Inc.) received uranium billets from Fernald's Feed Materials Production Center and the Weldon Springs Plant and extruded them into feed stock for fabrication of fuel and target elements to be used in nuclear materials production reactors.

Ashtabula was the corporate successor of the Bridgeport Brass Company of Adrian, Michigan, which performed similar extrusion work from 1954 to 1961. The semi-production extrusion press used at Adrian was transported and installed at Ashtabula.

In addition to its work for the Department of Energy (DOE) and its predecessor agencies, Ashtabula performed work for the Department of Defense and a number of commercial entities under a Nuclear Regulatory Commission (NRC) license.

Feed Materials Production Center (FMPC)

Also Known As: Fernald

Also Known As: Fernald Environmental Management Project (FEMP)

Also Known As: FERMCO State: Ohio Location: Fernald Time Period: 1951-present

Facility Type: Department of Energy

Facility Description: The Feed Materials Production Center (FMPC) at the Fernald site was established by AEC in 1951 to convert depleted uranium, natural uranium, and low-enriched uranium compounds into uranium metal and to fabricate uranium metal into feed stock for fuel and target elements for reactors that produced weapons-grade plutonium and tritium. The Fernald Plant, operated by National Lead of Ohio (NLO), along with the Weldon Spring Plant in Missouri, were feed materials plants built by the AEC in the 1950s to supply fuel to the increasing number of nuclear reactors located at Hanford and Savannah River. Production operations at the Fernald site continued until July 10, 1989, when they were suspended by the Department of Energy (DOE). DOE formally shut down the facility on June 19, 1991. During its production mission, the Fernald site produced over 225 million kilograms (500 million pounds) of high-purity uranium products to support United States defense initiatives.

Throughout the course of its operations, the potential for beryllium exposure existed at this site, due to beryllium use, residual contamination, and decontamination activities.

CONTRACTORS: Fluor Fernald (1992-present); Westinghouse (1985-1992); National Lead of

General Atomics

Ohio (1951-1985)

Also Known As: GA

Also Known As: Division of General Dynamics

Also Known As: John Jay Hopkins Laboratory for Pure and Applied Science

State: California Location: La Jolla

Time Period: AWE 1960-1969; BE 1959-1967; DOE 1996-1999 (remediation) **Facility Type:** Atomic Weapons Employer Beryllium Vendor Department of Energy

Facility Description: General Atomics was one of a number of private contractors that processed unirradiated scrap for the Atomic Energy Commission in the 1960s. In addition, the Hot Cell Facility was used for numerous post-irradiation examinations of Department fuels, structural materials, reactor dosimetry materials, and instrumentation. The Department-sponsored activities at the General Atomics Hot Cell Facility primarily supported the High Temperature Gas Cooled Reactor and the Reduced- Enrichment Research Test Reactor programs. In December 1994, General Atomics notified the Nuclear Regulatory Commission and the State of California Department of Health Services of its intent to cease operations in the Hot Cell Facility.

General Atomics was also the operating contractor for the AEC's Experimental Beryllium Oxide Reactor (EBOR). General Atomics manufactured EBOR fuel elements (UO2-BeO) on site and examined them in the site's hot cell.

General Electric Company (Ohio)

Also Known As: GE Evendale Also Known As: GE Cincinnati Also Known As: GE Lockland Also Known As: Air Force Plant 36

State: Ohio Location: Cincinnati/Evendale

Time Period: BE 1951-1970; AWE/DOE 1961-1970

Facility Type: Atomic Weapons Employer Beryllium Vendor Department of Energy

Facility Description: The Evendale Plant's major mission is to build aircraft engines. The AEC used this facility to work with a variety of radioactive materials, including uranium and thorium. This facility was also involved in the refining or fabrication of beryllium or beryllium oxide.

Grand Junction Operations Office

State: Colorado Location: Grand Junction

Time Period: 1947-1971

Facility Type: Department of Energy

Facility Description: The Grand Junction Office of the AEC was the headquarters for the uranium procurement program from 1947-1970. One of the principal functions of the GJO was the receipt, sampling, and analysis of uranium and vanadium concentrates from the numerous (32) ore processing operations in the western US. More than 347 million pounds of uranium oxide and 28 million pounds of vanadium oxide were received during the period from 1948-1971. In 1951 the AEC built a concentrate sampling plant and assay laboratory in the Grand Junction compound. This was operated by Ledoux company under a management and operating contract. In addition, the AEC built two ore-testing pilot plants in its compound in Grand Junction. These were, in effect, miniature processing plants in which approximately 30,000 tons of ore from 40 different uranium mines were tested between the years of 1953-1958. Furthermore, the AEC established a sampling and assaying station for the receipt of uranium ores at

Grand Junction. Concentrates produced by mills were delivered in steel drums to Grand Junction where they were received, weighed, sampled, and assayed as the basis for payment to the mills under the terms of their respective contracts.

CONTRACTORS: American Cyanamid Company (1953-1954) (pilot plant); American Smelting and Refining Company (1949-1956) (ore buying station, sampling, and assaying); Ledoux and Company (1948) (sampling); Lucius Pitkin, Inc. (1956-1971) (ore buying station, sampling, and assaying); National Bureau of Standards (1948) (analyses); National Lead Company (1954-1958) (pilot plant); and U.S. Vanadium Corporation (1943-1946) (green sludge mill).

Hanford

Also Known As: Hanford Engineer Works (HEW), Richland

State: Washington Location: Richland

Time Period: 1942-present

Facility Type: Department of Energy

Facility Description: Hanford was established in 1942, as a major government-owned nuclear weapons production site, fabricating reactor fuel, operating nine nuclear material production reactors and building five major chemical separation plants, and producing plutonium for nuclear weapons. Later operations also included nonmilitary applications of nuclear energy.

Throughout the course of its operations, the potential for beryllium exposure existed at this site, due to beryllium use, residual contamination, and decontamination activities.

CONTRACTORS:

Entire Site: Fluor Daniel (1994-present); Westinghouse Hanford (1987-1994); General Electric

Company (1946-1965); E.I. Du Pont de Nemours & Company (1943-1946)

Reactor Operations: UNC Nuclear Industries (1973-1987); United Nuclear Industries (1967-1973);

Douglas United Nuclear (1965-1967)

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Chemical Reprocessing: Rockwell Hanford Company (1977-1987); Atlantic-Company (1967-1977); Isochem, Incorporated (1965-1967)	Richfield Hanford

Iowa Ordnance Plant	
Also Known As: Burlington Ordnance Plant Also Known As: Silas Mason Co. Also Known As: Mason & Hanger Also Known As: Iowa Army Ammunition Plant State: Iowa Location: Burlington Time Period: 1947-1974 Facility Type: Department of Energy	
Facility Description: The Burlington Assembly Plant was built in 1947 as a fir plant. Assembly functions that were performed by Los Alamos at Sandia Base transferred to Burlington by 1949. Burlington continued to perform this work to Burlington Plant also made high explosive main charges for nuclear weapons of The AEC may have also performed weapons modifications, stockpile sampling testing, repairs, and weapons retirement activities at the plant. In 1974, the AE activities at the plant and transferred all functions to the Pantex Plant. Throughout the course of its operations, the potential for beryllium exposure exto beryllium use, residual contamination, and decontamination activities. CONTRACTOR: Mason & Hanger-Silas Mason Company (1953-1974)	in New Mexico were until 1974. The from 1947 to 1974. g, new material system C closed out its

Kansas City Plant	
State: Missouri Location: Kansas City Time Period: 1949-present	

Facility Type: Department of Energy

Facility Description: The Kansas City Plant was constructed in 1942 to build aircraft engines for the Navy. After World War II, it was used for storage. In 1949, the AEC asked the Bendix Corporation to take over part of the facility and it began manufacturing nonnuclear components for nuclear weapons. Electrical, electromechanical, mechanical, and plastic components are manufactured or procured by this facility.

In 1993, the Department of Energy officially designated the Kansas City Plant as the consolidated site for all nonnuclear components for nuclear weapons.

As of 1996, production activities at the site were still occurring and expected to continue indefinitely.

Throughout the course of its operations, the potential for beryllium exposure existed at this site, due to beryllium use, residual contamination, and decontamination activities.

EEOICPA Resource Book	Appendix B
CONTRACTORS: Honeywell FM&T (1999-present); Allied-Sig (1949-1999)	gnal Aerospace (formerly Bendix)
***************	*****
Kauai Test Facility	
State: Hawaii Location: Kauai	
Time Period: mid1970s-present	
Facility Type: Department of Energy	
Facility Description: Kauai Test Facility is situated on the north e Missile Range Facility on the west side of the island of Kauai, Have 25 major buildings. Kauai Test Facility is equipped with resources launching, tracking, and recovering instrumented rockets, rocket particle The Facility also provides high-quality capabilities for receiving, replayback" of radio telemetered test data. Additionally, resources an and photometric coverage of test objects and experiments. The Kauai Test Facility has been in operation since the mid-1970s, four weapon system delivery tests per year. The Department of Enetests resulted in contamination of three release sites including the rarea, and a photography laboratory.	waii. The Kauai Test Facility has a for assembling, testing, ayloads, and aircraft payloads. ecording, and "quicklook re available for optical tracking, conducting an average of three tergy (DOE) suspected that these
*******************	*****
Kettering Laboratory, University of Cincinnati	
State: Ohio Location: Cincinnati	
Time Period: 1947 - 1950 Facility Type: Beryllium Vendor	
Facility Description: The AEC funded a Kettering Laboratory res biological effects of beryllium and its compounds. Kettering was a methodology for beryllium for the AEC.	

Lawrence Berkeley National Laboratory

Also Known As: Radiation Laboratory

Also Known As: LBL

Also Known As: Lawrence Radiation Laboratory

Also Known As: Lawrence Berkeley National Laboratory

State: California Location: Berkeley

Time Period: 1939-present

Facility Type: Department of Energy

Facility Description: Since the early 1930s, the University of California has leased the <u>Lawrence Berkeley National Laboratory</u> to the Department of Energy for a wide range of energy-related research activities, including research in nuclear and high energy physics, accelerator research and development, materials research, and chemistry, geology, molecular biology, and biomedical research. Scientists at Berkeley developed the electromagnetic enrichment process that was installed and operated at the Y-12 plant in Oak Ridge from 1943-1947.

Throughout the course of its operations, the potential for beryllium exposure existed at this site, due to beryllium use, residual contamination, and decontamination activities.

Lawrence Livermore National Laboratory

Also Known As: California Radiation Laboratory

State: California Location: Livermore

Time Period: 1950-present

Facility Type: Department of Energy

Facility Description: The Atomic Energy Commission established the <u>Lawrence Livermore</u>
National <u>Laboratory</u> as a facility for nuclear weapons research. The Department of Energy (DOE) owns the Lawrence Livermore National Laboratory Main Site and Site 300; DOE and the University of California jointly operate the sites. The Main Site was initially used as a flight training base and an engine overhaul facility. Transition from naval operations to scientific research began in 1950, when the Atomic Energy Commission (AEC) authorized construction of a materials-testing accelerator site. The AEC established the University of California Radiation Laboratory, Livermore Site (the predecessor of the Lawrence Livermore National Laboratory) as a facility for nuclear weapons research. The Department of Energy purchased Lawrence Livermore National Laboratory's Site 300 from local ranchers in the 1950s for use as a remote high-explosives testing facility. Throughout the course of its operations, the potential for beryllium exposure existed at this site, due to beryllium use, residual contamination, and decontamination activities.

Lovelace Respiratory Research Institute

Also Known As: Inhalation Toxicology Research Institute

Also Known As: ITRI

State: New Mexico Location: Albuquerque

Time Period: 1960-present

Facility Type: Department of Energy

Facility Description: The <u>Lovelace Respiratory Research Institute</u> (formerly the Inhalation Toxicology Research Institute, or ITRI) is located on Kirtland Air Force Base. It was established in 1960 to conduct research on the human health consequences of inhaling airborne radioactive

materials. The Institute is operated for Department of Energy (DOE) by the non-profit Lovelace Biomedical and Environmental Research Institute. Throughout the course of its operations, the potential for beryllium exposure existed at this site to beryllium use, residual contamination, and decontamination activities. ***********************************
Throughout the course of its operations, the potential for beryllium exposure existed at this site to beryllium use, residual contamination, and decontamination activities. ***********************************
to beryllium use, residual contamination, and decontamination activities. ***********************************
Mallinckrodt Chemical Co., Destrehan St. Plant Also Known As: St. Louis Downtown Site State: Missouri Location: St. Louis Time Period: DOE 1942-1962; 1995 (remediation) Facility Type: Department of Energy Facility Description: From 1942 to 1957, Mallinckrodt Chemical Company conducted a variet milling and recovery operations with uranium chemical compounds at the St. Louis Downtown also known as the Destrehan Street Plant. The plant refined uranium ore, ultimately producing uranium metal. The activities supported research, development, and production programs for th national defense program. By 1957, the Mallinckrodt Chemical Company had processed more t 45,000 metric tons (50,000 tons) of natural uranium products at its facilities. During closeout of operations in 1957, governmentowned buildings were either dismantled or transferred to Mallinckrodt as part of a settlement. Decontamination work continued to 1962 when the plant were settlement.
Also Known As: St. Louis Downtown Site State: Missouri Location: St. Louis Time Period: DOE 1942-1962; 1995 (remediation) Facility Type: Department of Energy Facility Description: From 1942 to 1957, Mallinckrodt Chemical Company conducted a variet milling and recovery operations with uranium chemical compounds at the St. Louis Downtown also known as the Destrehan Street Plant. The plant refined uranium ore, ultimately producing uranium metal. The activities supported research, development, and production programs for th national defense program. By 1957, the Mallinckrodt Chemical Company had processed more t 45,000 metric tons (50,000 tons) of natural uranium products at its facilities. During closeout of operations in 1957, governmentowned buildings were either dismantled or transferred to Mallinckrodt as part of a settlement. Decontamination work continued to 1962 when the plant were settlement.
State: Missouri Location: St. Louis Time Period: DOE 1942-1962; 1995 (remediation) Facility Type: Department of Energy Facility Description: From 1942 to 1957, Mallinckrodt Chemical Company conducted a variet milling and recovery operations with uranium chemical compounds at the St. Louis Downtown also known as the Destrehan Street Plant. The plant refined uranium ore, ultimately producing uranium metal. The activities supported research, development, and production programs for the national defense program. By 1957, the Mallinckrodt Chemical Company had processed more to 45,000 metric tons (50,000 tons) of natural uranium products at its facilities. During closeout of operations in 1957, governmentowned buildings were either dismantled or transferred to Mallinckrodt as part of a settlement. Decontamination work continued to 1962 when the plant were settlement.
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milling and recovery operations with uranium chemical compounds at the St. Louis Downtown also known as the Destrehan Street Plant. The plant refined uranium ore, ultimately producing uranium metal. The activities supported research, development, and production programs for th national defense program. By 1957, the Mallinckrodt Chemical Company had processed more t 45,000 metric tons (50,000 tons) of natural uranium products at its facilities. During closeout of operations in 1957, governmentowned buildings were either dismantled or transferred to Mallinckrodt as part of a settlement. Decontamination work continued to 1962 when the plant were settlement.
released back to Mallinckrodt. Throughout the course of its operations, the potential for beryllium exposure existed at this site.

Middlesey Municipal Landfill
Middlesex Municipal Landfill
Also Known As: MML State: New Jersey Location: Middlesex
Time Period: AWE 1948-1960; DOE 1980-1998
Facility Type: Atomic Weapons Employer Department of Energy
Facility Description: From 1948 to 1960, the Middlesex Sampling Plant conducted thorium an uranium activities and disposed of the wastes at the Middlesex Municipal Landfill.

State: New Jersey Location: Middlesex

Time Period: 1943-1967; 1980-1998 (remediation)

Facility Type: Department of Energy

Facility Description: In 1943, the Manhattan Engineer District (MED) established the Middlesex Sampling Plant to assay, sample, store, and ship uranium, thorium, and beryllium ores. Until 1950, the plant was operated by the MED and then the AEC. By 1948, Ledoux and Company and Lucius Pitkin, Inc. personnel were stationed on site to perform assaying work. Another contractor, Perry Warehouse, provided laborers until about 1950.

From 1950 to 1955, United Lead, a subsidiary of National Lead Co., operated the plant for the AEC. The plant discontinued uranium and beryllium assaying and sampling activities in 1955 and was used as a thorium storage and sampling site until 1967. In 1967, operations at Middlesex were terminated and all remaining thorium sampling activities were transferred to the Feed Materials Production Center and to the Weldon Spring Plant.

Throughout the course of its operations, the potential for beryllium exposure existed at this site, due to beryllium use, residual contamination, and decontamination activities.

CONTRACTOR: United Lead Company (1950-1955)

National Beryllia

Also Known As: Cercom Quality Products

Also Known As: General Ceramics State: New Jersey Location: Haskell Time Period: 1968 - 1973; 1983-1986 Facility Type: Beryllium Vendor

Facility Description: National Beryllia performed a demonstration of its capabilities for production of parts for Y-12 beginning in late 1968, with delivery in March 1969. Additionally, National Beryllia delivered some parts to Union Carbide (Y-12), though the records indicate there was only partial performance for this purchase order, which was terminated in April of 1973. Between 1984-1986 the National Beryllia division of General Ceramics had a series of purchase orders through Martin Marietta, which was operating Y-12 at the time. These contracts involved the shipment of beryllium from BrushWellman to National Beryllia with Y-12 being the ultimate customer.

Nevada Test Site

State: Nevada Location: Mercury Time Period: 1951-present

Facility Type: Department of Energy

Facility Description: The Nevada Test Site was established in 1951. The mission of the Test Site is to conduct field tests of nuclear devices in connection with the research and development of nuclear weapons. The Nevada Test Site, slightly larger than the State of Rhode Island, has been the primary location for testing nuclear explosive devices since Operation Ranger was first conducted in 1951. In addition, the site is used for low-level waste disposal. Currently, the site is allowing other types of

testing at the site, conducting remediation, and is in a standby mode so that if nuclear weapons testing ever is needed again, it could be conducted at the Nevada Test Site.

Throughout the course of its operations, the potential for beryllium exposure existed at this site, due to beryllium use, residual contamination, and decontamination activities.

CONTRACTORS: Bechtel Nevada (1996-present); Reynolds Electrical & Engineering Company (1952-1995)

Holmes and Narver was an architectual and engineering contractor at the Nevada Test Site from late 1951 until November 1990. Holmes and Narver's role at the Nevada Test Site was to design and supervise construction of facilities that included towers, bunkers, instrument stations, tunnel complexes, and other test-support facilities. In November 1990, this function was assumed by a new contractor, Raytheon Services, Nevada.

Oak Ridge Gaseous Diffusion Plant (K-25)

Also Known As: East Tennessee Technology Park (ETTP)

State: Tennessee Location: Oak Ridge

Time Period: 1943-1987; 1988-present (remediation)

Facility Type: Department of Energy

Facility Description: The K-25 gaseous diffusion plant at <u>East Tennessee Technology Park</u> (ETTP) was built as part of the World War II Manhattan Project to supply enriched uranium for nuclear weapons production. Construction of the ETTP started in 1943 with the ETTP Building, the first diffusion facility for large-scale separation of uranium-235. The ETTP Building was fully operable by August 1945. Additional buildings involved in the enrichment process were operable by 1956. Along with the plants in Paducah, KY, and Portsmouth, OH, the site was used primarily for the production of highly-enriched uranium for nuclear weapons until 1964.

From 1959 to 1969, focus shifted to the production of commercial-grade, low-enriched uranium. In 1985, declining demand for enriched uranium caused the enrichment process to be placed on standby. In 1987, the process was stopped permanently.

The ETTP was also a host for centrifuge facilities constructed as part of a program to develop and demonstrate uranium-enrichment technology. These facilities have also been shut down.

Throughout the course of its operations, the potential for beryllium exposure existed at this site, due to beryllium use, residual contamination, and decontamination activities.

CONTRACTORS: Bechtel Jacobs (1998–present); Lockheed Martin Eenrgy Systems, Inc. (1994-1998); Martin Marietta Energy Systems, Inc. (1984-1994); Union Carbide & Carbon Corp. (1943-1984)

Oak Ridge National Laboratory (X-10)

Also Known As: Clinton Laboratories State: Tennessee Location: Oak Ridge

Time Period: 1943-present

Facility Type: Department of Energy

Facility Description: During the Manhattan project, the <u>Oak Ridge National Laboratory</u> (ORNL) site was used by the University of Chicago Metallurgical Laboratory to construct the first pile semiworks - a test plant that would move the plutonium product process from the research stage to large scale production. DuPont began construction of the test pile, the X-10 reactor in March 1943 and was ready for operations by January 1944. A research facility designated as the Clinton Laboratories was built during the war to support X-10 reactor activities and included chemistry, health and engineering divisions.

After the war, the laboratory was transformed from a war production facility to a nuclear research center and changed its name to Oak Ridge National Laboratory in 1948. The Laboratory's research role in the development of nuclear weapons decreased over time, but the scope of its work expanded to include production of isotopes, fundamental hazardous and radioactive materials research, environmental research, and radioactive waste disposal.

Throughout the course of its operations, the potential for beryllium exposure existed at this site, due to beryllium use, residual contamination, and decontamination activities.

CONTRACTORS: University of Chicago (1943-1945); Monsanto Chemical (1945-1947); Union Carbide and Carbon Corp. (1948-1984); Martin Marietta Energy Systems (1984-1994); Lockheed Martin Energy Research Corp. (1994-1998); UT Battelle (2000-present)

Paducah Gaseous Diffusion Plant

State: Kentucky Location: Paducah

Time Period: 1952-1998

Facility Type: Department of Energy

Facility Description: The Department of Energy's <u>Paducah Gaseous Diffusion Plant</u> opened in 1952 to enrich uranium for nuclear weapons. During the plant's Cold War history, more than one million tons of uranium was processed. Uranium enriched at the site today is used as nuclear fuel in commercial power plants. The Paducah plant performs the first step in the uranium enrichment process, followed by further enrichment at the Ohio plant.

Construction of the Paducah plant began in 1951 in response to the increased demand for highly-enriched uranium resulting from nuclear weapons production. Initial operations began in 1952 and full operation was reached by 1955.

In addition to producing enriched uranium for weapons production, the plant also supplied enriched uranium for the Navy and for commercial fuel. The Paducah Plant also acted as the uranium hexafluoride feed point for all gaseous diffusion plants until 1964. Since 1991, the Paducah Plant has only produced low-enriched uranium for use as fuel in commercial nuclear power plants.

Throughout the course of its operations, the potential for beryllium exposure existed at this site.

The plant was taken over by the <u>United States Enrichment Corporation</u> in 1998.

CONTRACTORS: Lockheed Martin Energy Systems, Inc. (1984-1998); Union Carbide Corporation Nuclear Division (1952-1984)

Portsmouth Gaseous Diffusion Plant

State: Ohio **Location:** Piketon **Time Period:** 1954-1998

Facility Type: Department of Energy

Facility Description: The U.S. began construction of Portsmouth in 1952 in order to expand the nation's gaseous diffusion program. The gaseous diffusion plants already operating in Oak Ridge, TN and Paducah, KY were not able to fulfill the nation's need for highly enriched and low-enriched uranium. Portsmouth was used for isotope separation. Beginning in 1954, Portsmouth produced highly enriched uranium (which contains more than 20 percent uranium-235) to support nuclear weapons production and, later, for use by submarine, research, and test reactors. The high-enrichment portion of the diffusion cascade was shut down in 1991. In 1954, the plant also began producing low-enriched uranium (which contains about three percent uranium-235 and ninety-seven percent uranium-238) for use as fuel by commercial nuclear power plants. In the early 1980's, a gas centrifuge uranium enrichment program was initiated at Portsmouth, however, this process was never fully implemented.

Only July 1, 1993, the U.S. Enrichment Corporation (USEC), a government-owned corporation formed under the Energy Policy Act of 1992, assumed control of the plant's production activities. Under USEC control, the plant continues to produce low-enriched uranium for commercial use. The Department of Energy maintains responsibility for addressing the environmental legacy left by historic plant operations. Throughout the course of its operations, the potential for beryllium exposure existed at this site.

CONTRACTORS: Lockheed Martin Energy Systems, Inc. (1986-1998); Goodyear Atomic Corporation (1956-1986)

Precision Extrusion Co.

State: Illinois Location: Bensenville Time Period: 1949-1950; 1956-1959

Facility Type: Atomic Weapons Employer

Facility Description: Precision Extrusion was involved in several projects for the Atomic Energy Commission and Argonne National Laboratory. From 1949 to 1950, it extruded experimental fuel channel tubes from aluminum and aluminum-lithium alloys. During 1956 through 1959, Precision Extrusion performed several uranium extrusion projects on a small-scale basis.

Project Faultless Nuclear Explosion Site

State: Nevada Location: Central Nevada Test Site

Time Period: 1967-1974

Facility Type: Department of Energy

Facility Description: Project Fautless was an underground nuclear test explosion conducted at the Central Nevada Test Site, which was part of a program designed to improve the United States' ability to detect, identify, and locate underground nuclear exposions. The Faultess test was conducted to determine the suitablity of the area for additional seismic testing. Non-nuclear experiments designed to determine the behavior of seismic waves were also conducted in the vicinity. Drilling for this project began July 1967; the operation period began on November 27, 1967. The shot was fired on January 19, 1968. On December 9, 1979, the site was placed in caretaker status and demobilization and restoration work was conducted during fiscal 1974.

Project Shoal Nuclear Explosion Site

State: Nevada Location: Fallon

Time Period: 1962-1964

Facility Type: Department of Energy

Facility Description: Project Shoal was an underground nuclear test explosion which was part of a program designed to improve the United States' ability to detect, identify, and locate underground nuclear explosions. The Shoal test was conducted to determine the behavior and characteristics of seismic signals generated by nuclear expolsions in specific geological formations and to differentiate them from seismic signals generated by earthquakes.

Construction for this shot began in late 1962. The shot was fired on October 10, 1963. Post-shot drilling began October 28, 1963; drilling and sampling of one vertical bore hole was completed on December 20, 1963. Reopening and sampling the USBM#1 bore hole was completed on January 15, 1964. Site deactivation of the Shoal Project began on October 28, 1963 and rollup was completed by January 31, 1964.

Puerto Rico Nuclear Center

State: Puerto Rico **Location:** Mayaguez **Time Period:** 1957-1976; 1987 (Remediation)

Facility Type: Department of Energy

Facility Description: The Puerto Rico Nuclear Center (also known as the Center for Energy and Environment Research) was established in 1957 as a nuclear training and research institution. The facility included a one megawatt MTR research reactor, which became operational in 1960. During the next ten years, the AEC supported training and research activities at an annual level of approximately \$2 million. The MTR was shut down in 1971 and replaced a two megawatt TRIGA research reactor. Except for brief periods of time, TRIGA was never operated at power levels in excess of 1.2 megawatts.

In 1976, the facility was renamed the Center for Energy and Environmental Research (CEER) and the mission was broadened to include research, devlopment and training for both nuclear and non-nuclear energy technologies. The programs were transferred to the University of Puerto Rico at that time.

The TRIAGA reactor was shut down on September 30, 1976 and a program for decommissioning and removal of the reactor was initiated.

CONTRACTOR: University of Puerto Rico (1957-1976), BNI(1987), Cleveland Wrecking Caribe, Inc. (1987).

R. W. Leblond Machine Tool Co.

State: Ohio Location: Cincinnati

Time Period: 1961

Facility Type: Atomic Weapons Employer

Facility Description: National Lead Company of Ohio (Fernald) contracted with Leblond Machine for the purchase of a rapid boring machine. In 1961, acceptances tests, using 17 tons of natural uranium, were conducted at Leblond Machine.

Rare Earths/W.R. Grace

State: New Jersey Location: Wayne

Time Period: AWE 1955-1967; DOE uncertain-1998

Facility Type: Atomic Weapons Employer Department of Energy

Facility Description: From 1948 to 1971, Rare Earths, Inc. and W.R. Grace and Co. operated a plant at the Wayne site to extract thorium and rare earth elements from monazite sand ore, primarily for commercial purposes. The company entered into an agreement with the AEC in 1955.

Rocky Flats Plant

State: Colorado Location: Golden

Time Period: 1951-present

Facility Type: Department of Energy

Facility Description: Rocky Flats was built in 1951 as a plutonium and uranium component manufacturing center. From 1952 to 1989, the site's primary mission was to fabricate the "pit" that contains the heavy metals and serves as the trigger device for nuclear warheads. Rocky Flats was also responsible for recycling plutonium from scrap and plutonium retrieved from retired nuclear warheads. The final products of this recycling included components and assemblies manufactured

from uranium, plutonium, beryllium, stainless steel, and other metals. Production activities included metalworking, component fabrication and assembly, chemical recovery and purification of plutonium, and associated quality control functions. Research and development in the fields of chemistry, physics, metallurgy, materials technology, nuclear safety, and mechanical engineering were also conducted at the site.

In 1989, many of the site's nuclear component production functions were suspended after a safety review temporarily shut down plutonium operations. Following an extensive review, which included considerable independent oversight, a few buildings were authorized by the Secretary of Energy to resume limited plutonium operations: to stabilize plutonium oxide and repackage plutonium for safe storage. In 1989, as a result of the environmental contamination caused by production activities at the site, Rocky Flats was placed on the Superfund National Priorities List. In January 1992, nuclear component production was terminated and the site's primary mission changed from nuclear weapons production to environmental cleanup and restoration.

Throughout the course of its operations, the potential for beryllium exposure existed at this site, due to beryllium use, residual contamination, and decontamination activities.

CONTRACTORS: Kaiser-Hill Company (1995-present); EG&G Rocky Flats, Inc. (1989-1995); Rockwell International (1975-1989); Dow Chemical (1951-1975)

Sandia National Laboratories--Livermore

State: California Location: Livermore

Time Period: 1956-present

Facility Type: Department of Energy

Facility Description: Sandia National Laboratory-Livermore was established in 1956 to conduct research and development in the interest of national security. The principal emphasis was on development and engineering of the parts of nuclear weapons outside the warhead physics package. The site was selected for its proximity to Lawrence Livermore National Laboratory to facilitate a close working relationship between the two laboratories.

Throughout the course of its operations, the potential for beryllium exposure existed at this site, due to beryllium use, residual contamination, and decontamination activities.

Savannah River Site

State: South Carolina Location: Aiken

Time Period: 1950-present

Facility Type: Department of Energy

Facility Description: From 1950 until the late 1980s, the <u>Savannah River Site</u> conducted multiple operations that played a vital role in the U.S. nuclear weapons complex. Of greatest importance were the production of plutonium and tritium. Many facilities were built at SRS to support these production efforts and to address their resulting environmental impacts. They include five nuclear

reactors, two chemical separation plants (also known as canyons), a nuclear fuel and target fabrication facility, a heavy water plant, and waste management facilities. In addition, SRS is the location of the Savannah River Technology Center and the Savannah River Ecology Laboratory. SRS remains a key Department of Energy facility with an important national security mission of maintaining the nation's nuclear weapons stockpile and ensuring future production capabilities. Throughout the course of its operations, the potential for beryllium exposure existed at this site, due to beryllium use, residual contamination, and decontamination activities.

CONTRACTORS:Westinghouse Savannah River Company (1989-present); E. I. Du Pont de Nemours and Company (1950-1989)

Speedring, Inc.

Also Known As: Axsys Technologies State: Alabama Location: Culman

Time Period: 1971-1998

Facility Type: Beryllium Vendor

Facility Description: Brush Beryllium sublet some jobs for Dow/Rocky Flats to Speedring. More recently, Speedring performed work for Sandia National Laboratory. Speedring's beryllium dust and sampling practices are documented in Battelle's Defense Metals Information Center publication on "Some Notes on Safe Handling Practices for Beryllium." Speedring was part of the U.S. commercial beryllium industry in 1961 and receiving beryllium at this time, but records indicate that this beryllium was for use under another Government contract, possible for the Department of Defense. There is another Speedring facility in Detroit, MI.

University of Rochester Atomic Energy Project

State: New York Location: Rochester

Time Period: DOE 1943-1986

Facility Type: Department of Energy

Facility Description: Although much of the early theoretical and experimental work that led to development of the first nuclear weapon was accomplished outside the United States, American researchers made a number of fundamental contributions as well. Prior to 1942, the University of Rochester was one of the institutions that contributed to early nuclear physics research in the United States. The university was responsible for more than a hundred projects in chemistry, physics, biology, medicine and psychology. During the Manhattan Project, it had major responsibility for the medical aspects of the bomb program. After the war, Rochester received an AEC contract to operate the Atomic Energy Project (AEP), which focused on the biomedical aspects of nuclear energy. The University of Rochester also received funding to study the pathology and toxicology of beryllium as well as to study the analytical chemistry of micro-quantities.

Vitro Corporation of America (Tennessee)

Also Known As: Chattanooga site now owned by W.R. Grace Also Known As: Vitro Chemical is subsidiary of Vitro Corp.

Also Known As: Heavy Minerals Co. State: Tennessee Location: Chattanooga

Time Period: AWE 1957-uncertain; BE uncertain

Facility Type: Atomic Weapons Employer Beryllium Vendor

Facility Description: Records indicate that "Vitro Corporation" of Chattanoga, TN performed some beryllium work for Y-12. A 1962 document also mentions that the AEC met with members of the beryllium industry, including representatives from "Vitro Chemical" (no address), but does not mention whether any contracts were involved in these discussions.

The original owner of this site was Heavy Metals Inc. and possessed an AEC license to process uranium and thorium products beginning as early as 1957. Documentation indicates that the company provided price quotes to the AEC for thorium products as early as 1954, but there is no indication that it received a contract for that work. Vitro Chemical of Chattanooga, TN, a subsidiary of Vitro Corporation, took over the site at the end of 1959 and was under contract to the AEC to produce thorium metal, thorium fluoride and thorium oxide. This site is now owned by W.R. Grace.

W.R. Grace (Tennessee)

Also Known As: Nuclear Fuels Services Also Known As: Davison Chemical State: Tennessee Location: Erwin

Time Period: 1958-1970

Facility Type: Atomic Weapons Employer

Facility Description: The Davison Chemical Division of W.R. Grace Co. (later Nuclear Fuel Services) processed unirradiated uranium scrap for the AEC, recovering enriched uranium from it for use in the nuclear weapons complex. Correspondence from 1963 also indicates that the company also worked with thorium.

W.R. Grace and Company (Maryland)

Also Known As: Davison Chemical Corp. Also Known As: Agri-Chemicals Div. State: Maryland Location: Curtis Bay

Time Period: 1955-1958

Facility Type: Atomic Weapons Employer

Facility Description: Processing of radioactive materials at W.R. Grace began in July 1955 when Rare Earths, Inc. (W.R. Grace's predecessor) entered into a contract with the Atomic Energy Commission to extract thorium and rare earths from naturally-occurring monazite sands. In 1956, the Atomic Energy Commission contract and Rare Earths' license to possess, transfer, and use radioactive thorium were transferred to W.R. Grace & Company. The facility where thorium processing took place (Building 23) operated until late spring of 1957, when W.R. Grace and the Atomic Energy Commission agreed to terminate the contract, effective January 31, 1958.

W.R. Grace Co., Agricultural Chemical Div. (Florida)

State: Florida Location: Ridgewood

Time Period: 1954

Facility Type: Atomic Weapons Employer

Facility Description: For one month in 1954, W.R. Grace performed the pilot plant work on solvent extraction for Armour Fertilizer, which used the solvent process to extract uranium from phosphates.

West Valley Demonstration Project

Also Known As: Nuclear Fuels Services, West Valley Also Known As: Western New York Fuel Services Center

State: New York Location: West Valley

Time Period: AWE 1966-1973; DOE 1980-present

Facility Type: Atomic Weapons Employer Department of Energy

Facility Description: From 1966 to 1972, Nuclear Fuel Services, Inc., under contract to the State of New York, operated a commercial nuclear fuel reprocessing plant at the Western New York Nuclear Services Center. The plant reprocessed uranium and plutonium from spent nuclear fuel; sixty percent of this fuel was generated at defense facilities. Spent nuclear fuel reprocessing generated approximately 600,000 gallons of liquid high-level radioactive waste; this waste was stored onsite in underground tanks.

In 1980, the United States Congress passed the West Valley Demonstration Project Act (Public Law 96-368), which authorized the Department of Energy (DOE) to conduct a technology demonstration project to solidify the liquid high-level waste at the Western New York Nuclear Services Center. Under this act, DOE is also responsible for developing containers suitable for the permanent disposal of the solidified high-level waste at an appropriate Federal repository; transporting the containers to this repository; disposing of low level waste and transuranic waste generated by high level waste solidification; and decontaminating and decommissioning facilities used for the solidification. DOE is also responsible for dispositioning the spent nuclear fuel stored at the site.

In 1982, DOE selected vitrification as the treatment process for high level waste. This process solidifies and stabilizes nuclear waste by mixing it with molten glass. Pretreatment of the high-level

waste began in 1988 and was successfully completed in 1995. DOE expects to complete the West Valley Demonstration Project by 2005.

CONTRACTOR: West Valley Nuclear Services, Inc. (1982-present)

W.R. Grace (Tennessee)

Also Known As: Nuclear Fuels Services
Also Known As: Davison Chemical
State: Tennessee Location: Erwin

Time Period: 1958-1970

Facility Type: Atomic Weapons Employer

Facility Description: The Davison Chemical Division of W.R. Grace Co. (later Nuclear Fuel Services) processed unirradiated uranium scrap for the AEC, recovering enriched uranium from it for use in the nuclear weapons complex. Correspondence from 1963 also indicates that the company also worked with thorium.

Y-12 Plant

State: Tennessee Location: Oak Ridge

Time Period: 1942-present

Facility Type: Department of Energy

Facility Description: Built in a rural section of East Tennessee, the Y-12 National Security Complex, previously known as the Oak Ridge Y-12 Plant, was part of the Manhattan Project. Its job was to process uranium for the first atomic bomb. Construction of Y-12 started in February 1943; enriched uranium production started in November of the same year. Construction, however, was not entirely finished until 1945. The first site mission was the separation of uranium-235 from natural uranium by the electromagnetic separation process. The magnetic separators were taken out of commission at the end of 1946 when gaseous diffusion became the accepted process for enriching uranium.

Since World War II, the number of buildings at Y-12 has doubled. Its missions have included uranium enrichment, lithium enrichment, isotope separation and component fabircation. For more than 50 years, Y-12 has been one of the DOE weapons complex's premier manufacturing facilities. Every weapon in the stockpile has some components manufactured at the Y-12 National Security Complex.

Throughout the course of its operations, the potential for beryllium exposure existed at this site, due to beryllium use, residual contamination, and decontamination activities.

CONTRACTORS: BWXT (2000-present); Bechtel Jacobs (1998-2000); Lockheed Martin Energy Systems (1994-1998); Martin Marietta Energy Systems (1984-1994); Union Carbide & Carbon Corp. (1947-1984); Tennessee Eastman Corp. (TEC) (1943-1947)

EEOICE	PA Reso	urce Book

Appendix B

ORISE DATABASE PROCEDURES BULLETIN

EEOICPA BULLETIN NO. 02-34

Issue Date: September 300, 2002

Expiration Date: September 30, 2003

Subject: Procedures for using the on-line ORISE database.

<u>Background</u>: The program has been receiving employment information from a database maintained by the Oak Ridge Institute for Science and Education (ORISE) by sending lists of claims for employment verification directly to ORISE rather than the Department of Energy (DOE) point of contact.

The ORISE database includes over 400,000 employees from the 1940's until the early 1990's and has been an effective tool in verifying employment for EEOICP claimants. In order to streamline the use of the database, DEEOIC and the DOE have established an Internet-based means of access to the data. Claims Examiners will be able to access the database with an individual password and acquire employment data for a specific claim, eliminating the need to send individual requests to ORISE.

<u>Reference</u>: EEOICPA Bulletin No. 02-28; Interim procedures for obtaining employment verification from ORISE. ECMS Resource Users Guide and ECMS FAQ's.

<u>Purpose</u>: To provide procedures for obtaining employment verification information from the online ORISE database.

<u>Applicability</u>: Claims Examiners, Senior Claims Examiners, All Supervisors, ADP Coordinators and Technical Assistants.

Action:

- 1. At the time that a claim is initially reviewed, if the claims examiner (CE) determines that a request for employment verification is appropriate, the CE must first check the list of facilities that are included in the ORISE database (Attachment 1).
- 2. If the employee worked at a facility that is not included in the ORISE database, the CE should request employment verification through the usual manner, depending on the routing instructions for that particular facility.

- 3. If the employee worked at one of the facilities on the attached list, the CE should log on to the ORISE database through the secure web site address which can be obtained from the ECMS Resource Users Guide and ECMS FAQ's on the secure shared drive.
- 4. Upon accessing the web site, a security alert screen will come up which assigns a security certificate that authenticates that the CE is an authorized user and is using a secure site. The CE will have a choice of YES, NO or View Certificate. Please select Yes to continue.
- 5. A web page "The Department of Energy, Case Management System", with the login and password field at the bottom will be displayed. The CE will be required to enter his/her user name and password. Instructions for the username and temporary password can be obtained through the ECMS Resource Users Guide and ECMS FAQ's on the secure shared drive.
- 6. Once logged in, a web page that lists privacy and security information will appear. On the left side of the web page the CE will see buttons for Search ORISE, Change Password and Logout.
- 7. For security reasons, the CE should change his/her password by selecting the Change Password button.
- 8. To search the ORISE database, the CE must select the Search ORISE button. A screen will appear which provides fields for the first name, last name and social security number of the employee. The CE must enter at a minimum a partial last name and social security number for the individual for whom the search is being conducted.
- 9. Once the employee name and social security number is entered, the system will search the database and provide the results at the bottom of the page under ORISE Search Results. If the database finds a match, the name and social security number will appear. The CE must select the result to review the employment data.
- 10. The ORISE data is categorized in two rows of data. The first row is categorized by Facility and lists all the facilities where the employee worked. The second row is categorized in columns by Facility, Hire/Terminate Dates, Dept. Code, Job Title, and Badge Facility, Hire/Terminate Dates, Dept. Code, Job Title, and Badge Number and provides employment data specific to the facility(s) where the employee worked. For example, if the employee worked at three facilities, then the CE would see three rows of information pertaining to each of the identified facilities, information pertaining to each of the identified facilities, hire/terminate dates, dept. code, job title and badge number.
- 11. If the information from the ORISE database is used for employment verification, the CE should print a copy of the ORISE employment results, and place it in the case file along with the EE-5, and the memorandum from DOE stating that data contained in

the ORISE database is reliable and may be used as affirmation of employment. (Attachment 2).

- 12. The CE should enter the status code **OR** in ECMS only if ORISE information is used to verify employment. It will no longer be necessary to enter an OS (ORISE sent) status code.
- 13. Some of the data will show the employee's name and facility, but do not have any specific dates. These are individuals that worked at the facility, but for whom the database contains no specific dates.
- 14. The information available on the database is limited to certain time periods, which are different for each facility. Attachment 1 shows the earliest hire date and the latest termination date in the database for each facility. If an individual employee worked prior to or after those dates, that employment would not be reflected in the ORISE information. These dates do not necessarily correlate with the dates the facility was in operation.
- 15. If the claim is for a member of the SEC, and is for a specified cancer, the CE must determine whether the ORISE information confirms employment for the required number of days at the facility, during the required timeframe. If yes, place a memorandum in the file describing the relevant dates and facilities.
- 16. If the claim is for chronic beryllium disease or beryllium sensitivity, the CE should determine whether the ORISE information confirms employment at a DOE facility for at least one day when beryllium was present. If yes, place a memorandum in the file describing the relevant information.
- 17. If the claim is for non-SEC cancer, the CE must determine whether the ORISE information is sufficient to confirm each period of claimed DOE employment, and that the individual is a "covered employee." If yes, place a memorandum in the file describing the relevant information in the file. The dates provided by ORISE need not be precisely the same as those reported on the EE-3, however, they should be within 6 months of each other. For example, if an employee claims employment at a facility from 2/1/63-3/4/68, and ORISE confirms 3/1/63-5/1/68, the employment is confirmed. The most generous interpolation of those dates, e.g. 2/1/63-5/1/68, should be used as the period of employment in the NIOSH Referral Memo.
- 18. If the claim is for chronic silicosis, the CE must determine whether the ORISE information confirms employment for the required number of days at the facility. If yes, place a memorandum in the file describing the relevant dates and facilities.

Cor	ntents o	f CER Data	Model - 4/1/20	02	
Facility Name	Total	# with Hire Date	Earliest Hire	# with Term Date	Latest Term
Argonne	4994	4999	03/05/1942	163	09/30/1988
Baneberry	891	0			
Battelle-Columbus	90	90	05/05/1952	68	08/29/1986
Bethlehem	57	0			,
1Bettis	12462	3587	07/22/1940	138	02/01/1984
Brookhaven	155	154	11/11/1946	136	09/30/1985
CARL	3	3	07/15/1949	3	03/31/1976
CEER	5	5	02/01/1960	5	12/31/1981
Charleston NS	167	167	03/29/1938	88	09/17/1979
Electro Met	329	292	07/15/1933	177	07/23/1947
Energy Systems Group	45	45	06/11/1952	39	10/20/1978
Fermi Lab	10	10	07/01/1968	3	11/08/1985
Fernald	7300	7290	08/29/1950	6298	12/26/1989
General Dynamics-Groton	295	294	06/01/1939	220	11/30/1978
Hanford	7	7		5	04/29/1977
Hanford	129	0			
Hanford-Construction	13206	12953	02/13/1947	8651	09/30/1982
Hanford-Operations	56588	51734	01/01/1944	37724	01/02/1983
Harshaw	757	0			
Holmes&Narver	20644	20380	08/10/1933	19140	04/03/1980
INEEL	66	153	03/22/1951	111	01/30/1981
Ingalls	7163	0			
K-25	47941	47809	01/04/1943	44683	01/31/1993
KAPL	10432	9918	09/15/1943	6826	12/29/1979
Knolls-Idaho	2	2	03/01/1967	1	11/30/1972
Knolls-Kesserling	3	3	08/15/1974	3	09/30/1976
Knolls-Windsor	12	12	07/12/1956	11	04/16/1979
Lawrence Berkeley	434	429	01/01/1942	367	12/31/1984
Lawrence Livermore-NTS	485	482	01/10/1952	380	04/29/1986
Lawrence Livermore-NTS	21738	21621	01/01/1942	13981	07/18/1987

Linde	1551	1550	01/13/1941	1545	12/31/1949
Los Alamos	23288	428	01/15/1941	341	
Mallinckrodt	3259	3503			01/31/1990
	+		09/30/1930	2907	07/15/1986
Mare Island Shipyard	127	126	02/12/1940	79	09/13/1979
Middlesex	387	39	12/11/1943	8	04/30/1948
Mound	7415	6299	09/05/1940	4524	07/15/1987
MREM -Hanford	8	0	12/01/1944		
Naval Reactor Facility	61	61	09/19/1951	49	02/01/1979
New Brunswick Lab	10	0			
Newport News	180	180	04/13/1936	76	06/01/1979
Norfolk Shipyard	115	110	04/08/1940	65	08/10/1979
ORNL	26940	26694	01/29/1943	22143	02/03/1993
Pacific Test Site	5	0			
Paducah	5727	3902	01/12/1944	2494	07/31/1991
Pantex	7422	0			
Pearl Harbor Shipyard	58	58	07/15/1939	21	07/15/1979
PETC	1156	1146	09/30/1935	817	09/17/1993
PNL	3	3	04/07/1947	1	08/15/1980
Portsmouth Gas Diff	9237	8	08/03/1953	10	07/15/1980
Portsmouth Shipyard	21226	171	07/28/1939	88	08/30/1979
REECO-NTS	132	78	02/02/1952	67	05/30/1980
Rocky Flats	9586	920	07/15/1951	905	10/15/1988
Rust Engineering	2686	2678	11/20/1962	2349	12/22/1985
SAM Labs	2309	2174	01/15/1940	2093	12/15/1964
Sandia	24685	24681	07/16/1939	17742	07/29/1981
Savannah River	21472	21049	11/06/1950	14328	03/31/1989
Savannah River Lab	111	1			
Shippingsport	17	17	01/16/1942	6	08/01/1978
TEC	47107	47126	01/12/1941	47120	12/14/1947
Y-12	23773	23473	05/04/1947	17774	10/04/1992
Zia	15310	0			

CERADYNE INC - COSTA MESA	COSTA MESA	CA	4	Germantown Facility (Roger Anders)
CHAMBERSBURG ENGINEERING CO	CHAMBERSBURG	PA	4	Germantown Facility (Roger Anders)
CHAPMAN VALVE	INDIAN ORCHARD	MA	2	2
CHEMICAL CONSTRUCTION CO	LINDEN	NJ	4	Germantown Facility (Roger Anders)
CHUPADERA MESA	CHUPADERA MESA	NM	4	Germantown Facility (Roger Anders)
CINCINNATI MILLING MACHINE CO	CINCINNATI	ОН	2	
CITY TOOL & DIE MFG	SANTA CLARA	CA	4	Germantown Facility (Roger Anders)
CLARKSVILLE FACILITY	CLARKSVILLE	TN		Pantex Plant
CLIFTON PRODUCTS CO	PAINESVILLE	ОН	4	Germantown Facility (Roger Anders)
COLONIE SITE (NATIONAL LEAD)	COLONIE (ALBANY)	NY	1	
COLUMBIA UNIVERSITY	NEW YORK CITY	NY	3	
COMBUSTION ENGINEERING	WINDSOR	СТ	2	
CONNECTICUT AIRCRAFT NUCLEAR ENGINE LAB, CANEL	MIDDLETOWN	СТ	2	
COORS PORCELAIN	GOLDEN	СО	2	
COPPERWELD STEEL	WARREN	ОН	2	
CRANE CO	CHICAGO	IL	1	
CRUCIBLE STEEL CO	SYRACUSE	NY	4	Germantown Facility (Roger Anders)
DANA HEAVY WATER PLANT	DANA	IN	2	
DORR CORP	STAMFORD	СТ	4	Germantown Facility (Roger Anders)
DOW CHEMICAL CO	WALNUT CREEK	CA	1	
DU PONT DEEPWATER WORKS	DEEPWATER	NJ	2	
DU PONT-GRASSELLI RESEARCH LABORATORY	CLEVELAND	ОН	2	
EAGLE PICHER	QUAPAW	ок	4	Germantown Facility (Roger Anders)
EDGERTON GERMESHAUSEN + GRIER, INC	BOSTON	MA	1	
EDM EXOTICS	HAYWARD	CA	4	Germantown Facility (Roger Anders)
ELECTRO CIRCUITS INC	PASADENA	CA	4	Germantown Facility (Roger Anders)

ELECTRO METALLURGICAL	NIAGARA FALLS	NY	2	
ELECTROFUSION	FREMONT	CA	4	Germantown Facility (Roger Anders)
ELK RIVER REACTOR	ELK RIVER	MN	2	
ENERGY TECH ENGR'G CTR/ATOMICS INTL/ROCKETDYNE	SANTA SUSANA	CA	3	
ENVIRONMENTAL MEASUREMENTS LABORATORY	NEW YORK	NY		Chicago Operations Office
ERA TOOL AND ENGINEERING CO	CHICAGO	IL	4	Germantown Facility (Roger Anders)
ETHYL CORP.	BATON ROUGE	LA	4	Germantown Facility (Roger Anders)
EXTRUDED METALS CO	GRAND RAPIDS	MI	4	Germantown Facility (Roger Anders)
EXTRUSION PLANT (REACTIVE METALS INC)	ASHTABULA	ОН	3	· 1
FAIRCHILD HILLER CORPORATION	FARMINGDALE	NY	4	Germantown Facility (Roger Anders)
FANSTEEL METALLURGICAL CORP	CHICAGO	IL	4	Germantown Facility (Roger Anders)
FEED MATERIALS PRODUCTION CENTER (FMPC)	FERNALD	ОН		Ohio Field Office
FENN MACHINERY CO	HARTFORD	СТ	2	
FENWAL, INC	ASHLAND	MA	2	
FERMI NATIONAL ACCELERATOR LABORATORY	BATAVIA	IL		Chicago Operations Office
FOOTE MINERAL CO	EAST WHITELAND TWP	PA	4	Germantown Facility (Roger Anders)
FRANKFORD ARSENAL	PHILADELPHIA	PA	- 1	
FRANKLIN INSTITUTE	BOSTON	MA	4	Germantown Facility (Roger Anders)
GARDINIER INC	TAMPA	FL	4	Germantown Facility (Roger Anders)
GENERAL ASTROMETALS	YONKERS	NY	4	Germantown Facility (Roger Anders)
GENERAL ATOMICS	LA JOLLA	CA	2	
GENERAL ELECTRIC COMPANY	CINCINNATI/EVEN DALE	ОН	1	
GENERAL ELECTRIC PLANT	SHELBYVILLE	IN	1	
GENERAL ELECTRIC VALLECITOS	PLEASANTON	CA	2	
GERITY-MICHIGAN CORP	ADRIAN	МІ	1	
GRAND JUNCTION OPERATIONS CENTER	GRAND JUNCTION	со		Grand Junction Office

GRANITE CITY STEEL	GRANITE CITY	IL	2	
GREAT LAKES CARBON CORP	CHICAGO	IL	4	Germantown Facility (Roger Anders)
GRUEN WATCH	NORWOOD	ОН	4	Germantown Facility (Roger Anders)
GSA 39TH STREET WAREHOUSE	CHICAGO	IL	1	
HAFER TOOL	OAKLAND	CA	4	Germantown Facility (Roger Anders)
HALLAM SODIUM GRAPHITE REACTOR	HALLAM	NE	2	
HANFORD	RICHLAND	WA		Richland Operations Office
HARSHAW CHEMICAL CO	CLEVELAND	ОН	2	
HEALD MACHINE CO	WORCESTER	MA	2	
HEPPENSTALL CO	PITTSBURGH	PA	1	
HERRING-HALL MARVIN SAFE CO	HAMILTON	ОН	2	
HEXCEL PRODUCTS	BERKELEY	CA	2	
HOOKER ELECTROCHEMICAL	NIAGARA FALLS	NY	2	
HORIZONS, INC	CLEVELAND	ОН	1	
HUNTER DOUGLAS ALUMINUM CORP	RIVERSIDE	CA	1	
HUNTINGTON PILOT PLANT	HUNTINGTON	wv	2	
IDAHO NATIONAL ENGINEERING LABORATORY	SCOVILLE	ID		Idaho Operations Office
INTERNATIONAL NICKEL CO, BAYONNE LABORATORIES	BAYONNE	NJ	4	Germantown Facility (Roger Anders)
INTERNATIONAL RARE METALS REFINERY, INC	MT KISCO	NY	1	
INTERNATIONAL REGISTER	CHICAGO	IL	4	Germantown Facility (Roger Anders)
INTERNATL MINERALS + CHEMICAL CORP	MULBERRY	FL	4	Germantown Facility (Roger Anders)
IOWA ORDNANCE PLANT	BURLINGTON	IA	3	
ITHACA GUN CO	ITHACA	NY	4	Germantown Facility (Roger Anders)
JT BAKER CHEMICAL CO	PHILLIPSBURG	NJ	4	Germantown Facility (Roger Anders)
JERRY CARROLL MACHINING	SAN CARLOS	CA	4	Germantown Facility (Roger Anders)
JESSOP STEEL CO	WASHINGTON	PA	2	
JOSLYN MANUFACTURING AND SUPPLY CO	FT WAYNE	IN	2	
KAISER ALUMINUM CORP	DALTON	IL	4	Germantown Facility (Roger Anders)

KANSAS CITY PLANT	KANSAS CITY	MO		Kansas City Plant
KAUAI TEST FACILITY	KAUAI	Hi		Albuquerque Operations Center
KELLEX/PIERPONT	JERSEY CITY	NJ	1	-
KERR-MCGEE	GUTHRIE	ок	2	
KETTERING LABORATORY, UNIVERSITY OF CINCINNATI	CINCINNATI	ОН	1	
KOPPERS CO, INC	VERONA	PA	2	
LA POINTE MACHINE AND TOOL CO	HUDSON	MA	1	
LAB FOR BIOMEDICAL + ENVIRONMNTL SCIENCES	LOS ANGELES	CA	3	
LAB FOR ENERGY-RELATED HEALTH RESEARCH	DAVIS	CA	3	
LAB OF RADIOBIOLOGY + ENVIRONMNTL HEALTH	SAN FRANCISCO	CA	3	
LACROSSE BOILING WATER REACTOR	LACROSSE	WI	2	
LADISH CO	CUDAHY	WI	2	
LAKE ONTARIO ORDNANCE WORKS	NIAGARA FALLS	NY	1	
LANDIS MACHINE TOOL CO	WAYNESBORO	PA	2	,
LATTY AVENUE PROPERTIES	HAZELWOOD	МО	4	Germantown Facility (Roger Anders)
LAWRENCE BERKELEY NATIONAL LABORATORY	BERKELEY	CA		Oakland Operations Office
LAWRENCE LIVERMORE NATIONAL LABORATORY	LIVERMORE	CA		Oakland Operations Office
LEBOW	GOLETA	CA	4	Germantown Facility (Roger Anders)
LEDOUX AND CO	NEW YORK	NY	4	Germantown Facility (Roger Anders)
LINDE AIR PRODUCTS	BUFFALO	NY	2	
LINDE CERAMICS PLANT	TONAWANDA	NY	2	
LINDSAY LIGHT AND CHEMICAL CO	CHICAGO	IL	4	Germantown Facility (Roger Anders)
LOS ALAMOS MEDICAL CENTER	LOS ALAMOS	NM		Los Alamos Site Operations
LOS ALAMOS NATIONAL LABORATORY	LOS ALAMOS	NM		Los Alamos Site Operations
LOVELACE RESPIRATORY RESEARCH INSTITUTE	ALBUQUERQUE	NM		Albuquerque Operations Center
MACHLETT LABORATORIES	SPRINGDALE	СТ	4	Germantown Facility (Roger Anders)
MADISON SITE (SPECULITE)	MADISON	IL	2	

MAGNUS BRASS CO	CINCINNATI	ОН	4	Germantown Facility
MALLINCKRODT CHEMICAL CO,	ST LOUIS	МО	2	(Roger Anders)
DESTREHAN ST PLANT				
MANUFACTURING SCIENCES CORP.	OAK RIDGE	TN	4	Germantown Facility (Roger Anders)
MASSACHUSETTS INSTITUTE OF TECHNOLOGY	CAMBRIDGE	MA	2	
MATHIESON CHEMCIAL CO	PASADENA	TX	4	Germantown Facility (Roger Anders)
MAYWOOD CHEMICAL WORKS	MAYWOOD	NJ	4	Germantown Facility (Roger Anders)
MCDANIEL REFRACTORY CO	BEAVER FALLS	PA	2	
MCKINNEY TOOL AND MANUFACTURING CO	CLEVELAND	ОН	1	
MEDART CO	ST LOUIS	МО	4	Germantown Facility (Roger Anders)
MEDINA FACILITY	SAN ANTONIO	TX		Pantex Plant
METALS AND CONTROLS CORP	ATTLEBORO	MA	2	
MIDDLESEX MUNICIPAL LANDFILL	MIDDLESEX	NJ	4	Germantown Facility (Roger Anders)
MIDDLESEX SAMPLING PLANT	MIDDLESEX	NJ	3	·
MIDWEST MANUFACTURING CO	GALESBURG	IL	4	Germantown Facility (Roger Anders)
MITCHELL STEEL CO	CINCINNATI	ОН	1	
MITTS + MERREL CO	SAGINAW	MI	1	
MONSANTO CHEMICAL CO	DAYTON	ОН	3	
MOUND PLANT	MIAMISBURG	ОН		Ohio Field Office
MUSEUM OF SCIENCE AND INDUSTRY	CHICAGO	IL	4	Germantown Facility (Roger Anders)
NATIONAL BERYLLIA	HASKELL	NJ	1	
NATIONAL GUARD ARMORY	CHICAGO	IL	4.	Germantown Facility (Roger Anders)
NATIONAL RESEARCH CORP	CAMBRIDGE	MA	4	Germantown Facility (Roger Anders)
NATL BUREAU OF STANDARDS, VAN NESS STREET	WASHINGTON	DC	1	
NAVAL RESEARCH LABORATORY	WASHINGTON	DC	1	
NEVADA TEST SITE	MERCURY	NV		Nevada Operations Office
NEW BRUNSWICK LABORATORY	NEW BRUNSWICK	NJ		Chicago Operations Office
NEW ENGLAND LIME CO	CANAAN	СТ	4	Germantown Facility
				<u> </u>

				(Roger Anders)
NEW YORK UNIVERSITY	NEW YORK	NY	4	Germantown Facility (Roger Anders)
NORTHWEST MACHINING & MANUFACTURING	MERIDIAN	ID	4	Germantown Facility (Roger Anders)
NORTON CO	WORCESTER	MA	2	
NOT REPORTED - ENTRY ERROR	ANY	XX		
NOT SPECIFIC IN DOE TABLE - REPORTED ON CLAIM	ANY	XX		
NOT SPECIFIED/CLEAR ON CLAIM	ANY	XX		
NUCLEAR MATL & EQUIP CORP (NUMEC) APOLLO, PA	APOLLO	PA	2	
NUCLEAR MATL&EQUIP CORP (NUMEC) PARKS TWNSHIP	PARKS TOWNSHIP	PA	2	
NUCLEAR METALS, INC	CONCORD	MA	2	
OAK RIDGE GASEOUS DIFFUSION PLANT (K-25)	OAK RIDGE	TN		Oak Ridge Operations Office
OAK RIDGE HOSPITAL	OAK RIDGE	TN		Oak Ridge Operations Office
OAK RIDGE INSTITUTE FOR SCIENCE EDUCATION	OAK RIDGE	TN		Oak Ridge Operations Office
OAK RIDGE NATIONAL LABORATORY (X- 10)	OAK RIDGE	TN	7	Oak Ridge Operations Office
OAK RIDGE THERMAL DIFFUSION PLANT (S-50)	OAK RIDGE	TN		Oak Ridge Operations Office
OLIVER CORP	BATTLE CREEK	MI	1	
PACIFIC NORTHWEST NATIONAL LABORATORY	RICHLAND	WA		Richland Operations Office
PACIFIC PROVING GROUND	MARSHALL ISLANDS	MR		Nevada Operations Office
PADUCAH GASEOUS DIFFUSION PLANT	PADUCAH	KY		Oak Ridge Operations Office
PAINESVILLE SITE (DIAMOND MAGNESIUM CO)	PAINESVILLE	ОН	1	
PANTEX PLANT	AMARILLO	TX	Å	Pantex Plant
PEEK STREET FACILITY 1	SCHENECTADY	NY	3	
PENN SALT CO	PHILADELPHIA/W YNDMOO	PA	4	Germantown Facility (Roger Anders)
PHILADELPHIA NAVAL YARD	PHILADELPHIA	PA	1	
PHILCO-FORD	NEWPORT BEACH	CA	4	Germantown Facility (Roger Anders)
PICATINNY ARSENAL	DOVER	NJ	1	
PINELLAS PLANT	CLEARWATER	FL		Albuquerque

	T		1	
				Operations Center
PIQUA ORGANIC MODERATED REACTOR	PIQUA	ОН	2	
PLEASANTON TOOL & MANUFACTURING	PLEASANTON	CA	4	Germantown Facility (Roger Anders)
PODBELINIAC CORP	CHICAGO	IL	4	Germantown Facility (Roger Anders)
POLTECH PRECISION	FREMONT	CA	4	Germantown Facility (Roger Anders)
PORTSMOUTH GASEOUS DIFFUSION PLANT	PIKETON	ОН		Oak Ridge Operations Office
PRECISION EXTRUSION CO	BENSENVILLE	1L	4	Germantown Facility (Roger Anders)
PRINCETON PLASMA PHYSICS LABORATORY	PRINCETON	NJ		Chicago Operations Office
PROJECT CHARIOT SITE	CAPE THOMPSON	AK	9 1 ₇	Nevada Operations Office
PROJECT FAULTLESS NUCLEAR EXPLOSION SITE	C NEVADA TEST SITE	NV		Nevada Operations Office
PROJECT GASBUGGY NUCLEAR EXPLOSION SITE	FARMINGTON	NM		Nevada Operations Office
PROJECT GNOME NUCLEAR EXPLOSION SITE	CARLSBAD	NM		Nevada Operations Office
PROJECT RIO BLANCO NUCLEAR EXPLOSION SITE	RIFLE	СО		Nevada Operations Office
PROJECT RULISON NUCLEAR EXPLOSION SITE	GRAND VALLEY	СО		Nevada Operations Office
PROJECT SHOAL NUCLEAR EXPLOSION SITE	FALLON	NV		Nevada Operations Office
PUERTO RICO NUCLEAR CENTER	MAYAGUEZ	PR	1	
PURDUE UNIVERSITY	LAFAYETTE	IN	4	Germantown Facility (Roger Anders)
QUALITY HARDWARE AND MACHINE CO	CHICAGO	IL	1	
R KRASBURG AND SONS MANUFACTURING CO	CHICAGO	IL	4	Germantown Facility (Roger Anders)
R W LEBLOND MACHINE TOOL CO	CINCINNATI	ОН	4	Germantown Facility (Roger Anders)
RADIUM CHEMICAL CO	NEW YORK	NY	4	Germantown Facility (Roger Anders)
RARE EARTHS/ W R GRACE	WAYNE	NJ	4	Germantown Facility (Roger Anders)
REED ROLLED THREAD CO	WORCESTER	MA	2	
RENSSELAER POLYTECHNIC INSTITUTE	TROY	NY	4	Germantown Facility (Roger Anders)
	1	1		

		<u> </u>		(Roger Anders)
ROBIN MATERIALS	MOUNTAIN VIEW	CA	4	Germantown Facility (Roger Anders)
ROCKY FLATS PLANT	GOLDEN	СО		Rocky Flats Field Office
ROGER IRON CO	JOPLIN	МО	4	Germantown Facility (Roger Anders)
RON WITHERSPOON, INC.	CAMPBELL	CA	4	Germantown Facility (Roger Anders)
SACANDAGA FACILITY 1	GLENVILLE	NY	3	
SALMON NUCLEAR EXPLOSION SITE	HATTIESBURG	MS		Nevada Operations Office
SANDIA LABORATORY, SALTON SEA BASE	IMPERIAL COUNTY	CA		Albuquerque Operations Center
SANDIA NATIONAL LABORATORIES	ALBUQUERQUE	NM		Sandia Office
SANDIA NATIONAL LABS - LIVERMORE	LIVERMORE	CA		Sandia Office
SAVANNAH RIVER SITE	AIKEN	sc		Savanna River Operations Office
SCIAKY BROTHERS, INC	CHICAGO	IL	1	
SEAWAY INDUSTRIAL PARK	TONAWANDA	NY	4	Germantown Facility (Roger Anders)
SENECA ARMY DEPOT	ROMULUS	NY	1	
SEPARATIONS PROCESS RESEARCH UNIT (AT KNOLLS LAB)	SCHENECTADY	NY	3	
SEYMOUR SPECIALTY WIRE	SEYMOUR	СТ	1	
SHATTUCK CHEMICAL	DENVER	CO	1	~ ~ ~
SHIPPINGPORT ATOMIC POWER PLANT	SHIPPINGPORT	PA	2	
SHPACK LANDFILL	NORTON	MA	4	Germantown Facility (Roger Anders)
SIMONDS SAW AND STEEL CO	LOCKPORT	NY	3	
SOUTH ALBUQUERQUE WORKS	ALBUQUERQUE	NM	1	·
SOUTHERN RESEARCH INSTITUTE	BIRMINGHAM	AL	4	Germantown Facility (Roger Anders)
SPEEDRING INC - CULMAN AL	CULMAN	AL	2	
SPEEDRING SYSTEMS INC - DETROIT MI	DETROIT	MI	4	Germantown Facility (Roger Anders)
SPENCER CHEMICAL CO	KANSAS CITY	МО	4	Germantown Facility (Roger Anders)
SPENCER CHEMICAL CO, JAYHAWKS WORKS	PITTSBURG	KS	2	
SPERRY PRODUCTS INC	DANBURY	СТ	. 4	Germantown Facility (Roger Anders)

ST LOUIS AIRPORT STORAGE SITE (SLAPS)	ST LOUIS	МО	4	Germantown Facility (Roger Anders)
STANDARD OIL DEVELOPMENT CO OF NJ	LINDEN	NJ	4	Germantown Facility (Roger Anders)
STANFORD LINEAR ACCELERATOR CENTER	PALO ALTO	CA		Oakland Operations Office
STAR CUTTER CORP	FARMINGTON	MI	2	
STATEN ISLAND WAREHOUSE	NEW YORK	NY	4	Germantown Facility (Roger Anders)
STAUFFER METALS INC	RICHMOND	CA	4	Germantown Facility (Roger Anders)
STEVENS INSTITUTE OF TECHNOLOGY	HOBOKEN	NJ	4	Germantown Facility (Roger Anders)
SUPERIOR STEEL CO	CARNEGIE	PA	2	
SUTTON, STEELE AND STEELE CO	DALLAS	TX	4	Germantown Facility (Roger Anders)
SWENSON EVAPORATOR CO	HARVEY	IL	4	Germantown Facility (Roger Anders)
SYLVANIA CORNING NUCLEAR CORP- BAYSIDE LABORATORIES	BAYSIDE	NY	2	
SYLVANIA CORNING NUCLEAR CORP- HICKSVILLE PLANT	HICKSVILLE	NY	2	
TAPEMATION	SCOTTS VALLEY	CA	4	Germantown Facility (Roger Anders)
TECH-ART, INC	MILFORD	ОН	4	Germantown Facility (Roger Anders)
TENNESSEE VALLEY AUTHORITY	MUSCLE SHOALS	AL	2	
TEXAS CITY CHEMICALS, INC	TEXAS CITY	TX	1	
THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY	NEWPORT NEWS	VA		Oak Ridge Operations Office
TITANIUM ALLOYS MANUFACTURING	NIAGARA FALLS	NY .	2	
TITUS METALS	WATERLOO	IA	4	Germantown Facility (Roger Anders)
TOCCO INDUCTION HEATING DIV	CLEVELAND	ОН	4	Germantown Facility (Roger Anders)
TORRINGTON CO	TORRINGTON	СТ	2	
TRINITY NUCLEAR EXPLOSION SITE	W SANDS MISSILERANGE	NM		Los Alamos Site Operations
TRUDEAU FOUNDATION	SARANAC LAKE	NY	2	
TUBE REDUCING CO	WALLINGTON	NJ	4	Germantown Facility (Roger Anders)
TYSON VALLEY POWDER FARM	ST LOUIS	МО	4	Germantown Facility (Roger Anders)

U S PIPE AND FOUNDRY	BURLINGTON	NJ	4	Germantown Facility (Roger Anders)
U S STEEL CO, NATIONAL TUBE DIVISION	MCKEESPORT	PA	2	
UNITED LEAD CO	MIDDLESEX	NJ	4	Germantown Facility (Roger Anders)
UNITED NUCLEAR CORP	HEMATITE	МО	1	
UNIVERSITY OF CALIFORNIA	BERKELEY	CA	11_	
UNIVERSITY OF CHICAGO	CHICAGO	IL	2	
UNIVERSITY OF DENVER RESEARCH INSTITUTE	DENVER	СО	4	Germantown Facility (Roger Anders)
UNIVERSITY OF FLORIDA	GAINESVILLE	FL	4	Germantown Facility (Roger Anders)
UNIVERSITY OF MICHIGAN	ANN ARBOR	MI	4	Germantown Facility (Roger Anders)
UNIVERSITY OF NORTH CAROLINA	CHAPEL HILL	NC	4	Germantown Facility (Roger Anders)
UNIVERSITY OF ROCHESTER MEDICAL LABORATORY	ROCHESTER	NY	3	
UNIVERSITY OF VIRGINIA	CHARLOTTESVIL LE	VA	4	Germantown Facility (Roger Anders)
UTICA ST WAREHOUSE	BUFFALO	NY	4	Germantown Facility (Roger Anders)
VENTRON CORPORATION	BEVERLY	MA	2	
VIRGINIA-CAROLINA CHEMICAL CORP	NICHOLS	FL	1	
VITRO CORP OF AMERICA	CHATTANOOGA	TN	4	Germantown Facility (Roger Anders)
VITRO CORP OF AMERICA	WEST ORANGE	NJ	4	Germantown Facility (Roger Anders)
VITRO MANUFACTURING	CANONSBURG	PA	3	
VULCAN TOOL CO	DAYTON	ОН	1	
W R GRACE	ERWIN	TN	2	
W E PRATT MANUFACTURING CO	JOLIET	IL	2	
W R GRACE AND COMPANY	CURTIS BAY	MD	1	
W R GRACE CO, AGRICULTURAL CHEMICAL DIV	RIDGEWOOD	FL	4	Germantown Facility (Roger Anders)
WAH CHANG	ALBANY	OR	2	
WASH-RITE	INDIANAPOLIS	IN	4	Germantown Facility (Roger Anders)
WASTE ISOLATION PILOT PLANT	CARLSBAD	NM	3	
WATERTOWN ARSENAL	WATERTOWN	MA	1	
WELDON SPRING PLANT	WELDON SPRING	МО	3	

WEST VALLEY DEMONSTRATION PROJECT	WEST VALLEY	NY		Ohio Field Office
WESTINGHOUSE ATOMIC POWER DEVELOPMENT PLANT	EAST PITTSBURGH	PA	1	
WESTINGHOUSE ELECTRIC CORP	BLOOMFIELD	NJ	1	
WESTINGHOUSE NUCLEAR FUELS DIVISION	CHESWICK	PA	2	
WINCHESTER ENGINEERING AND ANALYTICAL CENTER	WINCHESTER	MA	1	_
WOBURN LANDFILL	WOBURN	MA	4	Germantown Facility (Roger Anders)
WOLFF-ALPORT CHEMICAL CORP	BROOKLYN	NY	4	Germantown Facility (Roger Anders)
WOLVERINE TUBE DIVISION	DETROIT	Mi	1	
WYCKOFF DRAWN STEEL CO	CHICAGO	IL I	4	Germantown Facility (Roger Anders)
WYKOFF STEEL CO	NEWARK	NJ	4	Germantown Facility (Roger Anders)
WYMAN GORDON INC	GRAYTON	MA	2	
Y-12 PLANT	OAK RIDGE	TN		Oak Ridge Operations Office
YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT	YUCCA MOUNTAIN	NV		Nevada Operations Office

CE CORPORATE CONTACT LIST for Employment Verification

Facility Name - Contacting Information - Special Instructions Updated June 23, 2003

Special Instructions:

ALLEGHENY-LUDLUM STEEL 186

Contact Name: Current Employer: Marcy Kline

Title:

Allegheny-Ludlum

Address 1:

100 River Road

Address 2:

City, State, Zip:

Brackenridge PA 15154

Phone: Fax:

724-226-5809 724-226-5165

Email:

55 **ALLIED CHEMICAL CORP PLANT**

Contact Name:

Pat George

Current Employer: Honeywell

Title:

Address 1:

Highway 45 North

Address 2:

City, State, Zip:

Metropolis

62960

PA 15212

Phone: Fax:

618-524-6395 618-524-6209

Email:

ALUMNM CO OF AMERICA (ALCOA) New Kensington PA

Contact Name:

Current Employer:

Anna Mae Litman **ALCOA**

201 Isabella Street

Title:

Address 1:

Address 2:

City, State, Zip: Pittsburgh

Phone:

412-553-4415

Fax:

Email:

31 **AMERICAN CHAIN AND CABLE CO**

Contact Name:

Sally FKI

Current Employer:

Title:

425 Post Road Address 1:

Address 2:

City, State, Zip:

Fairfield

CT 06430

Brennen

Phone:

203-255-7141

Fax:

Email:

Special Instructions:

Send mail or fax lists of names, SSN, dates of

Fax all requests to Marcy. Include employee name, date of birth, social security number and

dates of employment. Include your email

address. She will respond via email.

birth and dates of employment

Special Instructions:

Send lists of names, SSN, dates of birth, and

dates of employment.

Special Instructions:

She has limited employment information about some American Chain and Cable Workers. If she has no information on a claimant's employment history, then go to the Social Security Administration to confirm his

ARMCO-RUSTLESS IRON + STEEL 96 Karen

Contact Name:

Current Employer:

Title: Address 1:

Address 2: City, State, Zip:

Phone:

Fax:

513-425-2676

Dearth

Email:

ASHLAND OIL

Contact Name:

Geneva Massie Ashland

Current Employer:

Title:

Address 1:

5200 Blazer

Address 2:

City, State, Zip:

Dublin

614-790-3333

Tobert

OH 43017

Phone: Fax:

David

Email:

229 **B+TMETALS**

Contact Name:

Current Employer:

Title: Address 1: Address 2: City, State, Zip:

Phone:

614-228-5411

Fax:

Email:

BABCOCK + WILCOX CO 308

Contact Name:

Current Employer:

Framatone

Kim

Title:

Address 1:

3315 Old Forest

Address 2:

City, State, Zip:

Thomas

Linehan

VA 24501

60176

Phone:

434-832-2757

Lynchburg

Fax:

434-832-2345

Email:

119 **BAKER-PERKINS CO**

Contact Name:

Current Employer:

Title: Address 1:

5100 River Road

Address 2:

City, State, Zip:

Invensys

Schiller Park

Phone: Fax:

847-928-3634

Email:

Special Instructions:

Fax lists of names, SSN, dates of birth and dates of employment. There is no cost unless they have to go off-site to find the records to verify employment.

Special Instructions:

Send lists of names, social security numbers, dates of birth, and dates of employment. Ask for the Human Resources Department.

Special Instructions:

Call Mr. Toblert and give the name and the SSN for the person whom employiment verification is sought. He will call back with the inforomation.

Special Instructions:

Send lists of names, SSN, dates of birth and dates of employment. If Kim Thomas does not have the employment records, contact Sonya Cox, BWX Technologies, on 434-522-6850 or fax 434-522-6736

Special Instructions:

Send lists of names, SSN, dates of birth and

dates of employment.

BERYLLIUM CORP OF AMERICA - HAZLETON PA 267

Contact Name:

Faith

Kreisz

Special Instructions: Send lists of names, SSN, dates of birth and date of employment.

Current Employer:

Title:

Cabot Corporation 157 Concord Road

Address 1:

Address 2: City, State, Zip:

Billerica

MM 01821

TN 37874

Phone:

978-670-6243 978-667-5260

Fax: Email:

virginia_leonard@cabot-corp.com

BERYLLIUM CORP OF AMERICA - READING PA 268

Contact Name:

Ferguson Janice NGK Metals Corp

Current Employer:

Title: Address 1:

917 US Highway

Special Instructions:

Special Instructions:

Special Instructions:

Send lists of names, SSN, date of birth and dates of employment. NGK has no information on employees of the Beryllium Corp. Hazelton,

PA plant.

Address 2:

City, State, Zip:

Sweetwater

Phone:

423-351-0366

Fax: Email:

224 BERYLLIUM METALS AND CHEMICAL CORP

Contact Name: Current Employer: Taylor Don

Title:

Lithium Co.

Address 1:

449 North Cox Road

Address 2:

City, State, Zip:

NC 28054 Gastonia

Phone:

Fax: Email: 704-868-5455

233 **BERYLLIUM PRODUCTION PLANT (BRUSH)**

Contact Name:

Current Employer:

Dennsi Habrat Brush Wellman

Title:

Address 1:

17876 St. Clair

216-383-6803

Address 2:

City, State, Zip:

Cleveland

OH 44110

Phone:

Fax: Email:

190 **BETHLEHEM STEEL**

Contact Name: Current Employer: Pat Jaworski

Title:

Bethlehem Steel **Customer Call**

Address 1:

Martin Tower

Address 2:

City, State, Zip:

Bethlehem

PA 18016

Special Instructions:

Send lists of names, SSN, dates of birth, and dates of employment. If possible, include the name of the plant and its location where the employee worked. An alternative contact is Myrna Riveria on 610-694-7222 or Bill Bauer on

Send names, SSN, dates of birth and dates of employment. Contact Becky Calhoun in HR on

216-383-6862 and Dennis Habrat (who does the employment verifications) on 216-383-6803.

610-694-7603

Phone: Fax:

Email:

pat.jaworski@bethsteel.com

BLISS + LAUGHLIN STEEL

Contact Name: Current Employer: Sarah

Mastrobuono

Special Instructions:

Special Instructions:

dates of employment.

Special Instructions:

Special Instructions:

employment.

employment.

Title: Address 1:

Address 2: City, State, Zip: Email lists of names, SSN, dates of birth and dates of employment. If Sarah is not in, Waneta Negrette can help. Her number is 708-225-8207.

Send lists of names, SSN, dates of birth and

Send names, SSN, dates of birth and dates of

Send names, SSN, dates of birth and dates of

Phone:

330-670-3145

Fax: Email:

smastrobuono@republicengineered.com

59 **BLOCKSON CHEMICAL CO**

Contact Name:

Sherry Cook

Current Employer:

Olin Corporation

Title: Address 1:

501 Merritt 7 PO Box 4500

Address 2: City, State, Zip:

Norwalk

CT 06856

Phone:

203-750-2725

Fax: Email:

120 **BRIDGEPORT BRASS CO**

Contact Name:

Michael Bramnick

Current Employer:

Millenium Management

Title: Address 1:

230 Half Mile Road

Address 2: City, State, Zip:

Red Bank NJ 07701

Phone:

732-933-5170 732-933-5270

Fax: Email:

33 BRIDGEPORT BRASS CO, HAVENS LAB

Contact Name:

Current Employer:

Michael Bramnick Millenium

Title:

Management

Address 1:

230 Half Mile Road

Address 2:

City, State, Zip:

Red Bank

NJ 07701

OH 44110

Phone: Fax:

732-933-5170

732-933-5270

Email:

234 BRUSH BERYLLIUM CO - CLEVELAND OH

Contact Name: Current Employer:

Dennis Habrat Brush Wellman

Title:

HR Department

Address 1:

17876

Address 2:

St. Clair Ave

City, State, Zip:

Cleveland

Phone: Fax:

216-383-6845

Email:

216-383-6803

Special Instructions:

Send lists of names, SSN, dates of birth and

dates of employment.

121 **BRUSH BERYLLIUM CO - DETROIT MI**

Contact Name: Current Employer:

Dennis Habrat Brush Wellman HR Department

Title: Address 1: Address 2:

17876

City, State, Zip:

St. Clair Ave Cleveland

OH 44110

Phone: Fax:

216-383-6803 216-383-6845

Email:

236 **BRUSH BERYLLIUM CO - ELMORE OH**

Contact Name: Current Employer:

Dennis Habrat Brush Wellman **HR** Department

Title: Address 1: Address 2:

17876 St. Clair Ave

City, State, Zip:

Cleveland OH 44110

Phone: Fax:

235

216-383-6803 216-383-6845

Email:

BRUSH BERYLLIUM CO - LORAIN OH

Habrat

Contact Name: Current Employer:

Brush Wellman HR Department

Title: Address 1: Address 2:

17876 St. Clair Ave

Dennis

City, State, Zip:

Cleveland OH 44110

JacquelineWeintraub

Phone:

216-383-6803 216-383-6845

Fax: Email:

292 **C.I HAYES INC**

Contact Name: Current Employer:

C.I. Hayes Inc **Human Resources** Title: 800 Wellington Address 1:

Address 2:

City, State, Zip:

Cranston

401-467-5200

RI 02910

Phone:

Fax: Email:

CARBOLOY CO

Contact Name: Current Employer:

General Electric

800-367-2884

Title:

Address 1: PO Box

Address 2:

6024

City, State, Zip:

Schenectady NY 12301

Phone:

Fax: Email: **Special Instructions:**

Send lists of names, SSN, dates of birth and

dates of employment.

Special Instructions:

Send lists of names, SSN, dates of birth and

dates of employment.

Special Instructions:

Send lists of names, SSN, dates of birth and

dates of employment.

Special Instructions:

Call Jacqueline with names, social security numbers, dates of birth and dates of employment. Her extension is 226

Special Instructions:

Send lists of names, SSN, dates of birth, names

of company worked for and dates of

employment. When you call you must have the employees SSN and a person will come to the line. Ask them which facility they can verify

345 CARBORUNDUM COMPANY

Contact Name:

Lynn Acker Saint-Gobain

Current Employer: Title: Address 1:

Address 2:

City, State, Zip:

Watervliet

Phone:

518-266-2640

Fax: Email:

8 **CERADYNE INC**

Contact Name:

Jill

Baldwin

NY

Current Employer:

Title: Address 1: Address 2: City, State, Zip:

Phone: Fax:

714-549-0421 714-549-8573

Email:

CHAPMAN VALVE 100

Contact Name: Current Employer:

Michael Lande Pacific Valve

Title:

Address 1:

3201 Walnut Ave

562-426-2531

Address 2:

City, State, Zip:

Long Beach CA 90807

Phone:

Fax: Email:

CINCINNATI MILLING MACHINE CO 237

Contact Name:

Current Employer: Milacron

Title: Address 1: Payroll Department 2090 Florence Ave

Berko

OH 45206

Address 2:

City, State, Zip:

Cincinnati

Jo Ann

Phone:

513-487-5626

Fax: Email:

34 **COMBUSTION ENGINEERING**

Contact Name:

Current Employer:

Title: Address 1: Address 2:

City, State, Zip:

Phone:

203-750-2359 203-750-2283

Fax: Email:

Special Instructions:

Call Lynn with the employee name and SSN. She will not have data on employees who terminated without vesting for pension. Nor will she have data on vested pensioners who died.

Special Instructions:

Jill can usually do it over the phone if given full name and SSN. Her number is 714-549-0421 ext. 234.

Special Instructions:

Send lists of names, SSN, dates of birth and date of employment. Michael's extension is 670.

Special Instructions:

Send lists of names, SSN, dates of birth, and dates of employment.

Special Instructions:

Call Jo Ann and she will perform the verification

over the phone.

35 CONNECTICUT AIRCRAFT NUCLEAR ENGINE LAB, CANEL

Contact Name:

Becky

Landry

Special Instructions:

Current Employer:

United

The phone number goes to directly to a

Title:

Address 1:

computer. If you have any problems contact her at 860-565-6361

Address 2:

City, State, Zip:

CT Middletown

Phone:

860-755-4935

Fax: Email:

COORS PORCELAIN 25

Contact Name:

Sue Kadnuck

Special Instructions:

Current Employer:

Coorstek

Send lists of names, SSN, dates of birth, and dates of employment.

Send lists of names, social security numbers,

dates of birth, and dates of employment.

Address 1:

Address 2: City, State, Zip: 600 Ninth Street

Golden

CO 80401

Phone:

303-277-4080 303-277-4060

Fax: Email:

239

COPPERWELD STEEL

Contact Name: Current Employer:

Joyce Heckman LTV-Copperweld

Title:

Address 1:

2200 Four Gateway

Address 2:

City, State, Zip:

PA 15222-Pittsburgh

Woods

Phone:

412-263-3218

Fax: Email:

85

Special Instructions:

employment.

Special Instructions:

Title:

Contact Name:

Current Employer:

E.I. Du Pont de

Address 1:

1007 Market Street B4426C

Address 2: City, State, Zip:

Wilmington

DANA HEAVY WATER PLANT

Erica

DE 19898

Phone: Fax:

302-774-7725 302-773-3649

Email:

erica.l.wood@usa.dupont.com

DU PONT DEEPWATER WORKS

Contact Name: Current Employer:

Woods Erica E.I. Du Pont de

Title:

Address 1:

1007 Market Street

Address 2: City, State, Zip:

B4426C

Wilmington

DE 19898

Phone: Fax:

302-774-7725 302-773-3649

Email:

erica.l.wood@usa.dupont.com

Special Instructions:

Email names, SSN, dates of birth and dates of

Email names, SSN, dates of birth and dates of

240

DU PONT-GRASSELLI RESEARCH LABORATORY

DE 19898

Contact Name: Current Employer: Erica

E.I. Du Pont de

Special Instructions: Email names, SSN, dates of birth and dates of

employment.

Title:

Address 1: Address 2: City, State, Zip: 1007 Market Street

B4426C Wilmington

Phone: Fax: Email:

302-774-7725 302-773-3649

erica.l.wood@usa.dupont.com

ELECTRO METALLURGICAL 197

Contact Name: Current Employer:

Betty **Batista** Union Carbide

Title: Address 1:

39 Old Ridgebury

Address 2:

Human Resources

City, State, Zip: Danbury

Phone:

203-794-6531

203-794-3106

Fax: Email:

06817

CT

Ms. Batista has employment verification on Electro Metallurgical employees up to the date when Union Carbide divested the company to Morgan-Crucible. Fax lists of names, social security numbers, dates of birth, and dates of

employment.

Special Instructions:

ELK RIVER REACTOR

Contact Name: Current Employer:

Barbara Theno **Great River Energy**

Title:

Employee 17845 East

Address 1: Address 2:

City, State, Zip:

763-241-3753

Elk River MI 55330

Phone:

Fax: Email: Special Instructions:

Send lists of names, SSN, dates of birth and

dates of employment

37 **FENN MACHINERY CO**

Contact Name:

Darlene Jones Fenn

Current Employer:

Title: Address 1: Address 2: City, State, Zip:

Phone:

860-594-4418

Fax: Email:

102

Contact Name: Current Employer:

FENWAL, INC

Phil Mongada Kidde-Fenwal

Title: Address 1: Director of Human 400 Main Street

Address 2: City, State, Zip:

Ashland

MA 01721

Phone:

508-881-2000

Fax: Email: Special Instructions:

When you call Darlene give her the employee name and SSN. She will confirm employment

over the phone

Special Instructions:

Phil's extension is 2486. Send him lists of names, SSN, dates of birth and dates of

12 **GENERAL ATOMICS**

Contact Name:

Yolanda

Current Employer:

Title: Address 1: Address 2: City, State, Zip:

Phone:

858-455-2244 858-455-2225

Fax: Email:

13

Contact Name: Current Employer:

Lilly Wilderman GE Nuclear Energy

Title: Address 1: HR Specialist 175 Curtner Ave

Address 2:

M/C 391

GENERAL ELECTRIC VALLECITOS

City, State, Zip:

CA 95125 San Jose

Phone:

408-925-5013 408-925-6874

Fax: Email:

lilly.wilderman@gene.ge.com

62040

IL

65 **GRANITE CITY STEEL**

Contact Name: Current Employer: Lydia Kachigian National Steel

Title:

1951 State Street

Address 1: Address 2:

City, State, Zip:

Granite City

Phone:

618-451-4938 618-451-4115

Fax:

Email:

HALLAM SODIUM GRAPHITE REACTOR 144

Contact Name:

Gary Kruse Current Employer: Nebraska Public

Title:

Address 1:

PO Box 499

Address 2:

1414 15th Steet

City, State, Zip:

Columbus NE 68602

Phone:

402-563-5309

Fax: Email:

HARSHAW CHEMICAL CO

Contact Name:

Strine

Current Employer:

Engelhard Corp

Title:

Address 1: Address 2: 101 Wood Ave

City, State, Zip:

5th Floor Iselin

NJ 08830

Phone:

800-432-9191

Fax: Email: Special Instructions:z

Fax lists of names, SSN, dates of birth and

dates of employment.

Special Instructions:

Lilly will respond to written requests on DOL letterhead only. You may fax or mail the inquiry

directly to her.

Special Instructions:

Fax lists of names, SSN, dates of birth and

dates of employment.

Special Instructions:

Send names, SSN, dates of birth and dates of

employment

Special Instructions:

Send lists of names, SSN, dates of birth and

dates of employment.

104 **HEALD MACHINE CO**

Contact Name:

Payroll Department

OH 45206

Current Employer: Title:

Address 1:

2090 Florence

Address 2:

City, State, Zip:

Cincinnati

Milacron,

513-487-5626

Phone: Fax: Email:

HERRING-HALL MARVIN SAFE CO 246

Contact Name:

Kim Perry

Current Employer: Title:

Diebold,

Address 1:

5995 Mayfair Road

Address 2:

City, State, Zip:

North Canton OH 44720

Phone: Fax:

330-490-6941 330-490-6943

Email:

HEXCEL PRODUCTS

Contact Name:

Holland

Current Employer:

Hexcel Corp Corporate Human

Ashley

Title: Address 1:

2 Stamford Plaza 281 Tresser Blvd

Address 2: City, State, Zip:

Stamford CT 06901

Phone:

203-352-6851

Fax: Email: 203-358-3993

199

ashley.holland@hexcel.com

HOOKER ELECTROCHEMICAL

Contact Name:

Lu Ann Raymond

Current Employer:

Occidental

Title:

Address 1:

P.O. Box 344

Address 2:

City, State, Zip:

Niagara Falls NY 14302-

Phone:

716-278-7743

Fax: Email:

HUNTINGTON PILOT PLANT

Contact Name: Current Employer:

Amy Knight **INCO Limited**

Title:

Health and 3200 Riverside

Address 1: Address 2:

City, State, Zip:

Huntington

WV 25705

Phone:

304-526-5374 304-526-5309

Fax: Email:

Special Instructions:

Special Instructions:

Special Instructions:

employment to Ashley.

Special Instructions:

50s,& 60s by last day worked

Send list of names, social security sumbers,

Call claimant/survivor & get specific date of the

records of retired people who worked in 1940s,

Email names, SSN, dates of birth and dates of

Send lists of names, social security numbers,

dates of birth, and dates of employment

last day the person worked for Herring-Hall

Marvin Safe Co. The Diebold Co. has the Herring-Hall Marvin Safe Co. records, & files

dates of birth, and dates of employment.

Special Instructions: Send lists of names, social security numbers, dates of birth, and dates of employment. Amy

needs all requests sent via first class mail.

277 JESSOP STEEL CO

Contact Name: Current Employer: David Murphy

Allegheny-Ludium

Title: Address 1: Director of 100 River Road

Address 2: City, State, Zip:

Brackenridge PA 15154

Phone:

724-226-5809 724-226-5173

Fax: Email:

87 JOSLYN MANUFACTURING AND SUPPLY CO

Contact Name: Current Employer: Vivian Curran

Title:

Joslyn

Address 1:

3700 South

Address 2:

City, State, Zip:

Chicago

IL 60609

Phone:

773-927-1420 773-927-6862

Fax: Email:

261 KERR-MCGEE

Contact Name: Current Employer: BlackstockJudy KERR-MCGEE

Title:

Address 1:

Human Resources P.O. Box 25861

Address 2: City, State, Zip:

Oklahoma City OK 73125

Phone: Fax:

405-270-2993 405-270-3884

Email:

278 KOPPERS CO, INC

Contact Name: Current Employer: Steve Simond KOPPERS CO.,

Title:

Address 1:

Hansen North

Address 2: City, State, Zip:

Phone:

732-919-2319

Fax: Email:

316 LACROSSE BOILING WATER REACTOR

Contact Name: Current Employer: Pattilynn Brendum Dairyland Power

Title:

Address 1:

P.O. Box 817

Address 2:

City, State, Zip:

LaCrosse WI 54602

Phone:

608-787-1341

Fax: Email: Special Instructions:

Send or fax names, social security numbers, dates of birth, and dates of employment.

Special Instructions:

Send names, social security numbers, dates of birth, and dates of employment. Her extension

is #1274

Special Instructions:

Fax names, social security numbers, dates of

birth, and dates of employment.

Special Instructions:

Call Steve Simond and give him the worker's name and social security number. If worker got a Koppers pension, Mr. Simond can verify employment over the phone. If a worker didn't get a Koppers pension,we will have to go through

SSA to verify employment.

Special Instructions:

Send lists of names, social security numbers, dates of birth, and dates of employment

317 **LADISH CO**

Contact Name:

Darlene

Current Employer:

Ladish Company,

Title:

Address 1:

Corporate Offices

Address 2:

5481 S. Packard

City, State, Zip: Cudahy WI 53100

Phone:

414-747-2611

Fax: Email:

LANDIS MACHINE TOOL CO 279

Contact Name: Current Employer:

Beth Kennett Landis Threading

Title:

Address 1: Address 2: **Human Resources**

City, State, Zip:

360 S. Church Waynesboro PA 17268

Phone:

717-762-3151 717-762-3833

Fax: Email:

LINDE AIR PRODUCTS

Contact Name:

Tom Dugan Praxair, Inc.

Current Employer:

Title: Address 1:

204

175 East Park

Address 2:

City, State, Zip:

Tonawanda NY 14151-

Phone:

Fax:

716-879-2027 716-879-7117

Email:

205 LINDE CERAMICS PLANT

Contact Name: Current Employer:

Tom Dugan Praxair, Inc.

Title:

Address 1:

175 East Park

Address 2:

City, State, Zip:

Tonawanda

Phone:

716-879-2027 716-879-7117

Fax: Email:

71 **MADISON SITE (SPECULITE)**

Contact Name:

Current Employer:

Title:

Address 1:

1001 College St.

Address 2:

PO Box 258

City, State, Zip:

Madison

62060

NY 14151-

Phone:

Fax:

Email:

Special Instructions:

Call Darlene (Ladish Corp. personnel office) on 414-747-3488. Give her the name, social security number, dates of employment, and, if you have it, employee number of the person whose employment you need to verify. Darlene will do

verification over the phone

Special Instructions:

Fax names, social security numbers, dates of

birth, and dates of employment.

Special Instructions:

Send lists of names, social security numbers,

dates of birth, and dates of employment.

Special Instructions:

Send lists of names, social security numbers, dates of birth, and dates of employment.

Special Instructions:

CONNECTICUT AIRCRAFT NUCLEAR ENGINE LAB, CANEL 35

CT

Contact Name: Current Employer: Becky

Landry

United

Special Instructions:

The phone number goes to directly to a

computer. If you have any problems contact her

Send lists of names, SSN, dates of birth, and

Send lists of names, social security numbers, dates of birth, and dates of employment.

Email names, SSN, dates of birth and dates of

at 860-565-6361

Special Instructions:

dates of employment.

Special Instructions:

Special Instructions:

employment.

Title: Address 1:

Address 2: City, State, Zip:

Middletown

Phone:

860-755-4935

Fax:

Email:

25 **COORS PORCELAIN**

Contact Name: Current Employer:

Kadnuck Sue

Coorstek

Address 1:

600 Ninth Street

Address 2:

City, State, Zip:

Golden

Phone:

303-277-4080 303-277-4060

Fax: Email:

COPPERWELD STEEL 239

Contact Name:

Current Employer:

Joyce Heckman LTV-Copperweld

Title:

Address 1:

2200 Four Gateway

Address 2:

City, State, Zip:

Pittsburgh

PA 15222-

CO 80401

Phone:

412-263-3218

Fax: Email:

85 DANA HEAVY WATER PLANT

Contact Name:

Current Employer:

Erica

Woods E.I. Du Pont de

Title:

Address 1:

1007 Market Street

Address 2:

B4426C

City, State, Zip:

Wilmington

DE 19898

Phone: Fax:

302-774-7725 302-773-3649

Email:

erica.l.wood@usa.dupont.com

DU PONT DEEPWATER WORKS 157

Contact Name: Current Employer: Erica Woods E.I. Du Pont de

Title:

Address 1:

1007 Market Street

Address 2:

B4426C

City, State, Zip:

DE 19898 Wilmington

Phone:

302-774-7725 302-773-3649

Email:

Fax:

erica.l.wood@usa.dupont.com

Special Instructions:

Email names, SSN, dates of birth and dates of

240

DU PONT-GRASSELLI RESEARCH LABORATORY

Contact Name:

Erica Woods

E.I. Du Pont de

Special Instructions: Email names, SSN, dates of birth and dates of

employment.

Current Employer: Title:

1007 Market Street

Address 2: City, State, Zip:

Address 1:

B4426C

Wilmington

DE 19898

Phone: Fax:

302-774-7725

Email:

erica.l.wood@usa.dupont.com

302-773-3649

ELECTRO METALLURGICAL 197

Contact Name: Current Employer:

Betty **Batista** Union Carbide

Title:

Address 1:

39 Old Ridgebury

Address 2:

Human Resources

City, State, Zip:

CT 06817 Danbury

MI

Phone:

203-794-6531 203-794-3106

Fax: Email:

132 **ELK RIVER REACTOR**

Contact Name: Current Employer: Barbara Theno Great River Energy

Title: Address 1: Employee 17845 East

Address 2:

City, State, Zip:

Elk River

Phone:

763-241-3753

Fax: Email:

37

FENN MACHINERY CO

55330

Contact Name: Fenn

Darlene Jones

Current Employer:

Title: Address 1: Address 2: City, State, Zip:

Phone:

860-594-4418

Fax:

Email:

102 FENWAL, INC

Contact Name:

Phil Mongada

Current Employer: Title:

Kidde-Fenwal Director of Human 400 Main Street

Address 1: Address 2:

City, State, Zip: Ashland MA 01721

Phone:

508-881-2000

Fax: Email:

Special Instructions:

Ms. Batista has employment verification on Electro Metallurgical employees up to the date when Union Carbide divested the company to Morgan-Crucible. Fax lists of names, social security numbers, dates of birth, and dates of

employment.

Special Instructions:

Send lists of names, SSN, dates of birth and

dates of employment

Special Instructions:

Special Instructions:

employment.

When you call Darlene give her the employee name and SSN. She will confirm employment

Phil's extension is 2486. Send him lists of

names, SSN, dates of birth and dates of

over the phone

GENERAL ATOMICS 12

Contact Name:

Yolanda

Current Employer:

Title: Address 1: Address 2: City, State, Zip:

Phone:

858-455-2244 858-455-2225

Fax:

Email:

GENERAL ELECTRIC VALLECITOS 13

Contact Name: Current Employer:

Lilly Wilderman GE Nuclear Energy HR Specialist

Title: Address 1:

175 Curtner Ave

Address 2:

M/C 391

City, State, Zip:

San Jose CA 95125

Phone:

408-925-5013 408-925-6874

Fax: Email:

lilly.wilderman@gene.ge.com

IL

62040

GRANITE CITY STEEL 65

Contact Name: Current Employer: Lydia Kachigian National Steel

Title:

1951 State Street

Address 1:

Address 2: City, State, Zip:

Granite City

618-451-4938

Phone: Fax:

618-451-4115

Email:

HALLAM SODIUM GRAPHITE REACTOR 144

Contact Name:

Current Employer:

Gary Kruse Nebraska Public

Title:

Address 1:

PO Box 499 1414 15th Steet

Address 2:

Columbus

City, State, Zip:

402-563-5309

Phone:

Fax:

Email:

245 **HARSHAW CHEMICAL CO**

Contact Name: Jan Strine

Current Employer:

Engelhard Corp

Title:

Address 1:

101 Wood Ave

Address 2: City, State, Zip: 5th Floor Iselin

NJ 08830

NE 68602

Phone:

800-432-9191

Fax: Email:

Special Instructions:z Fax lists of names, SSN, dates of birth and

dates of employment.

Special Instructions:

Lilly will respond to written requests on DOL letterhead only. You may fax or mail the inquiry

directly to her.

Special Instructions:

Fax lists of names, SSN, dates of birth and

dates of employment.

Special Instructions:

Send names, SSN, dates of birth and dates of

employment

Special Instructions:

Send lists of names, SSN, dates of birth and

dates of employment.

104 **HEALD MACHINE CO**

Contact Name:

Payroli Department

Current Employer:

Milacron,

Title:

Address 1: Address 2:

2090 Florence

City, State, Zip:

OH 45206

Phone:

513-487-5626

Fax: Email:

Cincinnati

HERRING-HALL MARVIN SAFE CO 246

Contact Name:

Kim Perry

Current Employer:

Diebold,

Title:

Address 1:

5995 Mayfair Road

Address 2:

City, State, Zip:

North Canton OH 44720

Phone:

330-490-6941 330-490-6943

Fax: Email:

331 **HEXCEL PRODUCTS**

Contact Name:

Current Employer:

Ashley Holland Hexcel Corp

Title:

Corporate Human 2 Stamford Plaza

Address 1: Address 2:

281 Tresser Blvd

City, State, Zip:

Stamford CT 06901

Phone:

203-352-6851

Fax:

203-358-3993

Email:

ashley.holland@hexcel.com

HOOKER ELECTROCHEMICAL 199

Contact Name:

Lu Ann Raymond

Occidental Current Employer:

Title:

Address 1:

P.O. Box 344

Address 2:

City, State, Zip:

Niagara Falls NY 14302-

Phone:

Fax: Email: 716-278-7743

313 HUNTINGTON PILOT PLANT

Contact Name: Current Employer:

Amy Knight **INCO Limited**

Title:

Health and

WV 25705

Address 1:

3200 Riverside

Address 2:

City, State, Zip:

Huntington

Phone:

Fax:

304-526-5374 304-526-5309

Email:

Special Instructions:

Send list of names, social security sumbers, dates of birth, and dates of employment.

Special instructions:

Call claimant/survivor & get specific date of the last day the person worked for Herring-Hall Marvin Safe Co. The Diebold Co. has the Herring-Hall Marvin Safe Co. records, & files records of retired people who worked in 1940s,

50s,& 60s by last day worked

Special Instructions:

Email names, SSN, dates of birth and dates of

employment to Ashley.

Special Instructions:

Send lists of names, social security numbers, dates of birth, and dates of employment

Special Instructions:

Send lists of names, social security numbers, dates of birth, and dates of employment. Amy needs all requests sent via first class mail.

277 JESSOP STEEL CO

Contact Name:

David Murphy

Current Employer:

Allegheny-Ludlum Director of

Title:

100 River Road

Address 1: Address 2:

City, State, Zip:

Brackenridge PA 15154

Phone:

724-226-5809 724-226-5173

Fax: Email:

JOSLYN MANUFACTURING AND SUPPLY CO

Contact Name:

Vivian Curran

Current Employer: Joslyn

Title:

Address 1:

3700 South

Address 2:

City, State, Zip:

Chicago

60609

Phone:

773-927-1420 773-927-6862

Fax: Email:

KERR-MCGEE 261

Contact Name: Current Employer:

BlackstockJudy KERR-MCGEE

Title:

Address 1:

Human Resources P.O. Box 25861

Address 2: City, State, Zip:

Oklahoma City OK 73125

Phone:

Fax: Email: 405-270-2993 405-270-3884

KOPPERS CO, INC 278

Contact Name:

Current Employer:

Steve Simond KOPPERS CO.,

Title:

Address 1:

Hansen North

Address 2: City, State, Zip:

Phone:

732-919-2319

Fax:

Email:

LACROSSE BOILING WATER REACTOR 316

Contact Name: Current Employer: Pattilynn Brendum Dairyland Power

WI 54602

Title:

Address 1:

P.O. Box 817

Address 2:

City, State, Zip:

LaCrosse

Phone: Fax:

608-787-1341

Email:

Special Instructions:

Send or fax names, social security numbers, dates of birth, and dates of employment.

Special Instructions:

Send names, social security numbers, dates of birth, and dates of employment. Her extension

is #1274

Special Instructions:

Fax names, social security numbers, dates of

birth, and dates of employment.

Special Instructions:

Call Steve Simond and give him the worker's name and social security number. If worker got a

Koppers pension, Mr. Simond can verify employment over the phone. If a worker didn't get a Koppers pension, we will have to go through

SSA to verify employment.

Special Instructions:

Send lists of names, social security numbers, dates of birth, and dates of employment

LADISH CO 317

Contact Name:

Darlene

Current Employer: Ladish Company,

Title:

Address 1:

Corporate Offices

Address 2: City, State, Zip: 5481 S. Packard

Cudahy

WI 53100

Phone:

414-747-2611

Fax: Email:

LANDIS MACHINE TOOL CO 279

Contact Name: Current Employer:

Beth Landis Threading

Title:

Address 1: Address 2:

Human Resources 360 S. Church

Kennett

City, State, Zip:

Waynesboro PA 17268

Phone:

717-762-3151 717-762-3833

Fax: Email:

204 **LINDE AIR PRODUCTS**

Contact Name:

Dugan Tom Praxair, Inc.

Current Employer: Title:

Address 1:

Address 2:

175 East Park

City, State, Zip:

Tonawanda 716-879-2027 NY 14151-

NY 14151-

Phone:

Fax:

716-879-7117

Email:

205 LINDE CERAMICS PLANT

Contact Name: Current Employer:

Tom Dugan Praxair, Inc.

Title:

Address 1:

Address 2:

City, State, Zip:

175 East Park Tonawanda

716-879-2027

Phone: Fax:

716-879-7117

Email:

MADISON SITE (SPECULITE) 71

Contact Name: Current Employer:

Title:

Address 1:

1001 College St.

Address 2: PO Box 258

Madison

62060 City, State, Zip:

Phone:

Fax:

Email:

Special Instructions:

Call Darlene (Ladish Corp. personnel office) on 414-747-3488. Give her the name, social security number, dates of employment, and, if you have it, employee number of the person whose employment you need to verify. Darlene will do verification over the phone

Special Instructions:

Fax names, social security numbers, dates of

birth, and dates of employment.

Special Instructions:

Send lists of names, social security numbers, dates of birth, and dates of employment.

Special Instructions:

Send lists of names, social security numbers, dates of birth, and dates of employment.

Special Instructions:

MALLINCKRODT CHEMICAL CO, DESTREHAN ST PLANT 136

Contact Name: Current Employer:

Pat Duft Mallinckrodt

MO 63042

MA 02139

Special Instructions:

Special Instructions:

Special Instructions:

Special Instructions:

employee.

Send lists of names, social security numbers, dates of birth, and dates of employment.

Send lists of names, job titles, social security

employment. Also try to indicate whether the claimant was an academic or a nonacademic

Send lists of names, social security numbers,

dates of birth, and dates of employment. The

Send lists of names, social security numbers,

dates of birth, and dates of employment.

phone number is 724-843-8300, ext. 248.

numbers, dates of birth, and dates of

Title:

Address 1:

675 McDonnell

Address 2:

City, State, Zip: St. Louis

Phone: Fax:

314-654-6314 314-654-6486

Email:

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Contact Name: Current Employer:

Sarah Heaney Massachusetts

Title:

Address 1:

77 Massachusetts

Address 2:

City, State, Zip:

Cambridge

Phone:

617-253-9489 617-258-8501

Fax: Email:

280 **MCDANIEL REFRACTORY CO**

Contact Name:

Bergman Current Employer: Vesuvius-McDanel

Title: Address 1:

510 Ninth Avenue

Address 2:

City, State, Zip: Beaver Falls PA 15010

Phone:

724-843-8300

Fax: Email:

107 **METALS AND CONTROLS CORP**

Contact Name: Current Employer:

Frank Veale Texas Instruments

Title: Address 1:

MS: 10-2

Address 2:

34 Forest Street

City, State, Zip:

MA 02703 Attleboro

Phone:

508-236-1804

Fax: Email:

109 **NORTON CO**

Contact Name: Current Employer: Carol Ormand Saint-Gobain

Title:

Address 1: Address 2:

One New Bond Box Number 15008

City, State, Zip:

Worcester

Phone: Fax:

508-795-2167 508-795-2828

Email:

MA 01615-

Special Instructions:

Fax lists of names, social security numbers, dates of birth, and dates of employment.

NUCLEAR MATL & EQUIP CORP (NUMEC) APOLLO, PA

Contact Name:

Pankey Julia

Current Employer: Title:

BWXT Services, Comp. & Benefits 2016 Mt. Athos

Address 1: Address 2:

City, State, Zip:

Lynchburg

434-522-5501

VA 24504

Phone:

Fax:

Email:

Special Instructions:

Special Instructions:

Special Instructions:

Special Instructions:

Send lists of names, social security numbers, dates of birth, and dates of employment.

NUCLEAR MATL&EQUIP CORP (NUMEC) PARKS TWNSHIP

Contact Name:

Current Employer:

Title: Address 1: Address 2: City, State, Zip:

Phone: Fax: Email:

NUCLEAR METALS, INC 110

Contact Name: Current Employer: Janet Hammon Starmet Corporation

Title:

Address 1: Address 2: 2229 Main Street

City, State, Zip:

Concord

Phone:

978-369-5410

Fax: Email: Send lists of names, social security numbers, dates of birth, and dates of employment. The number is (978) 369-5410, ext. 249.

Call in lists of names, social security numbers, dates of birth, and dates of employment. If Judy

is busy, Diana in the Human Resources office can help. She is on (937) 778-2052.

255 PIQUA ORGANIC MODERATED REACTOR

Contact Name:

Judy

Payner

MA 01742

Current Employer:

Title:

Address 1:

Finance Office

Address 2:

City, State, Zip:

City of Piqua OH

Phone:

978-778-2069

Fax:

Email:

REED ROLLED THREAD CO

Contact Name:

Janet Olson Reed-Rico

Current Employer:

Title: 18 Industrial Drive

Address 1:

Address 2: City, State, Zip:

Holden MA 01520-

Phone: Fax:

508-926-5273 508-926-5383

Email:

Special Instructions:

Fax lists of names, social security numbers, dates of birth, and dates of employment.

SHIPPINGPORT ATOMIC POWER PLANT

Contact Name:

Dave Hershberger

Current Employer:

Title:

Address 1:

Duquesne Light

Address 2:

Human Resources

City, State, Zip:

Phone:

412-393-6378

Fax: Email:

2 **SPEEDRING INC - CULMAN AL**

Contact Name: Current Employer:

Judy Axsys Bradford

Title:

Address 1:

P.O. Box 1588

Address 2:

City, State, Zip:

Cullman

AL 35056-

Phone:

256-737-5200

Fax: Email:

SPENCER CHEMICAL CO, JAYHAWKS WORKS Contact Name:

BlackstockJudy Kerr-McGee Current Employer:

Title:

94

Address 1: Address 2:

Human Resources P.O. Box 25861

City, State, Zip:

Oklahoma City OK 73125

Phone: Fax:

405-270-2993 405-270-3884

Email:

129 STAR CUTTER CORP

Contact Name:

Michelle Kamen Star Cutter

Current Employer: Title:

Address 1: Address 2: City, State, Zip:

Phone:

989-345-3732 989-345-3719

Fax: Email:

mkamen@starcutter.com

286

SUPERIOR STEEL CO

Contact Name: Current Employer:

Heckman Joyce LTV-Copperweld

Title:

Address 1:

2200 Four Gateway

PA 15222-

Address 2:

City, State, Zip:

Pittsburgh

412-263-3218

Phone: Fax:

Email:

Special Instructions:

Give him employee name, employee number, dates of employment, and other info that he might need. He will verify over the phone. For verifications of employees who no longer work for Duquesne, try Dawn Laitres, First Energy on 724-682-5245.

Special Instructions:

Send lists of names, social security numbers, dates of birth, and dates of employment. (If Judy is out, Christie Mize on 256-737-5282 can help. Her fax number is 256-737-5249).

Special Instructions:

Fax names, social security numbers, dates of

birth, and dates of employment.

Special Instructions:

Fax or email names, social security numbers, dates of birth and dates of and place of employment. Michelle's extension is 1422

Special Instructions:

Send lists of names, social security numbers, dates of birth, and dates of employment.

SYLVANIA CORNING NUCLEAR CORP-BAYSIDE LABORATORIES

Contact Name:

Ken Verizon

Chovanetz

Special Instructions: Send lists of names, social security numbers,

dates of birth, and dates of employment. Faxing

dates of birth, and dates of employment. Faxing

Title:

Current Employer:

MC;SV1W3ESC

Address 1: Address 2:

750 Canyon Drive

City, State, Zip:

Coppell

TX 75019

Phone: Fax:

214-285-1381 214-285-1746

Email:

SYLVANIA CORNING NUCLEAR CORP-HICKSVILLE PLANT

Contact Name: Current Employer:

Ken Verizon Chovanetz

Special Instructions: Send lists of names, social security numbers,

Title: Address 2:

Address 1:

MC;SV1W3ESC 750 Canyon Drive

City, State, Zip:

Coppell

TX 75019

Phone: Fax:

214-285-1381 214-285-1746

Email:

3

TENNESSEE VALLEY AUTHORITY

Contact Name:

Current Employer:

Tennessee Valley

Title: Address 1:

Attn: Employee 400 West Summit

Address 2: City, State, Zip:

TN 37902 Knoxville

Phone: Fax:

888-275-8094 888-633-0372

Email:

Special Instructions:

employment.

Special Instructions: Send lists of names, social security numbers, dates of birth, and dates of employment.

Contact phone number and be ready to send lists of names, SSN, dates of birth, dates of

TITANIUM ALLOYS MANUFACTURING 218

Contact Name:

Current Employer:

Ferro Corporation

Title:

Address 1: Address 2: PO Box 67 4511 Hyde Park

City, State, Zip:

Niagra Falls NY 14305

Phone:

716-278-9400 716-285-3026

Fax: Email:

41 **TORRINGTON CO**

Contact Name:

Decker

Special Instructions:

Current Employer:

Daisy

Fax names, social security numbers, dates of birth, and dates of employment.

Title:

Address 1: Address 2:

Human Resources The Torrington

City, State, Zip:

CT 06790-Torrington

Phone:

860-626-2910 860-496-3603

Fax: Email:

daisy_decker@ingersoll-rand.com

219 TRUDEAU FOUNDATION

Contact Name: Current Employer: Amy Richardson

Title:

Trudeau Institute **Human Resources**

Address 1:

PO Box 59

Address 2: City, State, Zip: 100 Algonquin Ave Saranac Lake NY 12983

Phone: Fax:

518-891-3084 518-891-5126

Email:

U.S. STEEL CO, NATIONAL TUBE DIVISION

Contact Name: Current Employer:

Janet Telech **United States**

Title:

Address 1:

United States

Address 2:

City, State, Zip:

Monroeville

PA 15146

Phone:

412-433-6779

Fax: Email:

81 **UNIVERSITY OF CHICAGO**

Contact Name:

Current Employer:

Title:

Address 1: Address 2:

University of 5801 Ellis, Room

Annetha Bartley

City, State, Zip:

60637 Chicago IL

Phone:

Fax: Email: 773-702-8816

VENTRON CORPORATION 113

Contact Name:

Vanessa Gibson-Cooper Metal Hydrides

Current Employer:

Title: Address 1:

Address 2: City, State, Zip:

Phone:

215-592-2868

Fax: Email:

300 W R GRACE

Contact Name: Current Employer: Ruth Salts **Nuclear Fuels**

Title:

Address 1: Address 2:

Nuclear Fuels 1205 Banner Hill

City, State, Zip:

Erwin

TN 37650

Phone: Fax:

423-743-1712 423-743-9025

Email:

Special Instructions:

Fax names, SSN and dates of employment.

Amy's extension is 152.

Special Instructions:

Fax lists of names, social security numbers, dates of birth, and dates of employment.

Special Instructions:

Send lists of names, social security numbers, dates of birth, and dates of employment.

Special Instructions:

Call Vanessa Gibson-Cooper of the Rohm and Hass Corporation human resources on 215-592-2868. Give her name and social security number and she will verify over the phone.

Special Instructions:

Send lists of names, social security numbers, dates of birth, and dates of employment.

82 WE PRATT MANUFACTURING CO

Contact Name:

Vivian

Curran

Current Employer: Title:

Address 1:

Joslyn Joslyn

Address 2: City, State, Zip:

3700 South Chicago

ΙL

Bowl

60609

Phone: Fax:

773-927-1420 773-927-6862

Email:

WAH CHANG 263

Contact Name:

Current Employer:

Title: Address 1:

Address 2:

Human Resources PO Box 460

City, State, Zip:

Albany

Eileen

OR 97321

Phone: Fax:

541-967-6944 541-812-7030

Email:

WESTINGHOUSE NUCLEAR FUELS DIVISION

Contact Name: Current Employer:

Carmen Owens **EMD Curtiss**

Title:

348

Address 1:

1000 Cheswick

Address 2:

City, State, Zip:

Cheswick

PA 15024

Phone: Fax:

724-275-5017 724-275-2771

Email:

WYMAN GORDON INC 117

Contact Name:

Current Employer:

Alice Moore Wyman Gordon,

Title:

Address 1:

Address 2:

City, State, Zip:

244 Worcester

508-839-8363

North Grafton MA 01536-

Phone: Fax:

Email:

Special Instructions:

Send lists of names, social security numbers, dates of birth, and dates of employment. Vivian Curran telephone number is 773-927-1420, ext.

Special Instructions:

Fax request for employment verification on

agency letterhead

Special Instructions:

Fax requests for employment verification on signed DOL letterhead. Reference the employee

name, SSN, date of birth and dates of

employment

Special Instructions:

Send lists of names, social security numbers, dates of birth, and dates of employment.

DOE OPERATIONS CENTERS/CONTACTS/FACILITIES

CE Employment Verification Referral Sheet Updated June 23, 2003

Albuquerque Operations Center

Contact Name: Address1:

Phillip Griego

Address2:

MOCD PO Box 5400

Address3:

Albueguerque NM

87185

PhoneNum: FaxNum:

505-845-6108 505-845-7415 prgriego@doeal.gov

ALBUQUERQUE OPERATIONS OFFICE

ALBUQUERQUE

NM

KAUAI TEST FACILITY

KAUAI

НІ

LOVELACE RESPIRATORY RESEARCH

ALBUQUERQUE

NM

PINELLAS PLANT

CLEARWATER

FL

SANDIA LABORATORY, SALTON SEA BASE

IMPERIAL COUNTY CA

coo

Chicago Operations Office

Contact Name:

Georgett Lane

Address1: Address2:

9800 South Cass Ave.

Address3:

Argonne

60439

PhoneNum: FaxNum:

630-252-8906

630-252-2855

georgette.lane@ch.doe.gov

1L

AMES LABORATORY

AMES

IA

ARGONNE NATIONAL LABORATORY-EAST

ARGONNE

IL ID

ARGONNE NATIONAL LABORATORY-WEST **BROOKHAVEN NATIONAL LABORATORY**

SCOVILLE UPTON

NY

ENVIRONMENTAL MEASUREMENTS LABORATORY

NEW YORK

NY

FERMI NATIONAL ACCELERATOR LABORATORY

BATAVIA

IL

NEW BRUNSWICK LABORATORY

NEW BRUNSWICK

NJ

PRINCETON PLASMA PHYSICS LABORATORY

PRINCETON

NJ

GJO

Grand Junction Office

Contact Name:

Jeff

Address1: Address2:

2597 B. Three Quarter Road

Tack

Address3:

Grand Junction CO

970-248-7714

81503

PhoneNum: FaxNum:

970-248-6040

jeffrey.tack@gjo.doe.gov

GRAND JUNCTION OPERATIONS CENTER

GRAND JUNCTION CO

100

Idaho Operations Office

Contact Name: Address1:

Katherin Vivian Mail Stop 1242 850 Energy Drive

Address2: Address3:

Idaho Falls

ID

83401

PhoneNum: FaxNum:

208-526-0337 208-526-7407

vivianka@id.doe.gov

IDAHO NATIONAL ENGINEERING LABORATORY

SCOVILLE

ID

KCP

Kansas City Plant

Contact Name:

Alice Lund

Address1:

Honeywell Federal Manufactruing &

Address2:

Law Dept. 2e50

Address3:

2000 East Bannister Road

Kansas City

PhoneNum: FaxNum:

816-997-3316 816-997-7353

alund@kcp.com

KANSAS CITY PLANT

KANSAS CITY

MO

LASO

Los Alamos Site Operations

64131

Contact Name:

Phillippa Griego

Address1: Address2:

528 35th Street

Address3:

Los Alamos

NM

87544

PhoneNum: FaxNum:

505-665-5331 505-665-4873

pgriego@doeal.gov

LOS ALAMOS MEDICAL CENTER

LOS ALAMOS

NM

LOS ALAMOS NATIONAL LABORATORY

LOS ALAMOS

NM

TRINITY NUCLEAR EXPLOSION SITE

W SANDS

NM

Appendices -- 78

NOO

Nevada Operations Office

Contact Name: Address1:

Karen Hatch PO Box 98518

Address2:

Address3:

Las Vegas

NV 89193

PhoneNum: FaxNum:

702-295-3269 702-295-0877 hatch@nv.doe.gov

AMCHITKA ISLAND NUCLEAR EXPLOSION SITE AMCHITKA ISLAND AK **NEVADA TEST SITE MERCURY** NV PACIFIC PROVING GROUND MARSHALL MR PROJECT CHARIOT SITE CAPE THOMPSON ΑK PROJECT FAULTLESS NUCLEAR EXPLOSION C NEVADA TEST NV PROJECT GASBUGGY NUCLEAR EXPLOSION SITE **FARMINGTON** PROJECT GNOME NUCLEAR EXPLOSION SITE **CARLSBAD** NM PROJECT RIO BLANCO NUCLEAR EXPLOSION **RIFLE** CO **GRAND VALLEY** PROJECT RULISON NUCLEAR EXPLOSION SITE CO PROJECT SHOAL NUCLEAR EXPLOSION SITE **FALLON** NV

OROO

Oak Ridge Operations Office

37830

HATTIESBURG

YUCCA MOUNTAIN NV

MS

Contact Name: Address1:

Tim Joseph Mail Stop CC-10 PO Box 2001

Address3:

Oak Ridge

SALMON NUCLEAR EXPLOSION SITE

YUCCA MOUNTAIN SITE CHARACTERIZATION

TN

PhoneNum: FaxNum:

865-574-5600 865-574-8079

josepht@oro.doe.gov

OAK RIDGE GASEOUS DIFFUSION PLANT (K-25) OAK RIDGE TN OAK RIDGE HOSPITAL OAK RIDGE TN OAK RIDGE INSTITUTE FOR SCIENCE EDUCATION OAK RIDGE TN OAK RIDGE NATIONAL LABORATORY (X-10) OAK RIDGE TN OAK RIDGE THERMAL DIFFUSION PLANT (S-50) OAK RIDGE ΤN PADUCAH GASEOUS DIFFUSION PLANT **PADUCAH** KY PORTSMOUTH GASEOUS DIFFUSION PLANT **PIKETON** ОН THOMAS JEFFERSON NATIONAL ACCELERATOR **NEWPORT NEWS** VA Y-12 PLANT OAK RIDGE TN

000

Oakland Operations Office

Contact Name: Address1:

Mark Barnes **HRMD Division** 1301 Clay Street

Address2: Address3:

Oakland

CA

94612

PhoneNum: FaxNum:

510-637-1845

510-637-2008

mark.barnes@oak.doe.gov

LAWRENCE BERKELEY NATIONAL

BERKELEY

CA

LAWRENCE LIVERMORE NATIONAL LABORATORY

LIVERMORE

CA

STANFORD LINEAR ACCELERATOR CENTER

PALO ALTO

CA

OFO

Ohio Field Office

Contact Name: Address1:

Marian Wilcox PO Box 3020 1 Mount Road

Address2: Address3:

Miamisburg

OH

45343

PhoneNum: FaxNum:

MOUND PLANT

937-865-4468

937-865-5087

marian.wilcox@ohio.doe.gov

FEED MATERIALS PRODUCTION CENTER (FMPC)

FERNALD

MIAMISBURG OH

WEST VALLEY DEMONSTRATION PROJECT

WEST VALLEY

NY

ОН

PP

Pantex Plant

Contact Name:

Mark Blackburn

Address1:

US DOE Office of Amarillo Site Operations

Address2: Address3:

Bldg. 12-36 Hwy 60 & FM2373

Amarillo

TX

79120

PhoneNum:

806-477-3123

FaxNum:

806-477-5894

mblackbu@pantex.doe.gov

CLARKSVILLE FACILITY

CLARKSVILLE

TN

MEDINA FACILITY

SAN ANTONIO

TX

PANTEX PLANT

AMARILLO

TX

Richland Operations Office ROO

Contact Name:

Yamauchi

Address1: Address2:

PO Box 550 825 Jaldwin Ave

Address3:

Mail Stop A7-80 Richland

WA

99352

PhoneNum: FaxNum:

509-376-1525

509-376-5378

julianna_w_yamauchi@rl.gov

HANFORD

RICHLAND

WA

PACIFIC NORTHWEST NATIONAL LABORATORY

RICHLAND

WA

RFFO

Rocky Flats Field Office

Contact Name:

Dotti

Address1: Address2:

10808 HWY 93 Unit A 10808 Highway 93

Address3:

Golden

CO

80403

PhoneNum: FaxNum:

303-966-8240 303-966-6770

dotti.whitt@rf.doe.gov

ROCKY FLATS PLANT

GOLDEN

CO

SAN

Sandia Office

Contact Name:

Anna Miller

Address1: Address2: Health Services Bldg 831 PO Box 5800 MS 1015

Address3:

1515 Eubank NE NM

PhoneNum:

Albuquerque

FaxNum:

505-844-5411 505-845-8190

amiller@sandia.gov

SANDIA NATIONAL LABORATORIES

ALBUQUERQUE

NM

SANDIA NATIONAL LABS - LIVERMORE

LIVERMORE

CA

SROO

Savanna River Operations Office

87123

Contact Name: Address1:

PO Box A

Road 1A

Address2: Address3:

SC

29802

PhoneNum:

Aiken 803-952-8351

FaxNum:

803-952-7206

lakshmi.singh@srs.gov

SAVANNAH RIVER SITE

AIKEN

SC

NAH RIVER SITE

AIKEN

SC

Appendices --81

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Appendix D

DOE VERIFICATION OF EMPLOYMENT MEMO



Department of Energy

Washington, DC 20585

February 27, 2002

MEMORANDUM FOR:

Peter M. Turcic

Director

Division of Energy Employee Occupational Illness

Office of Workers' Compensation Programs

U.S. Department of Labor

FROM:

Steven V. Cary Steven V. Cary Acting Director, Office of Worker Advocacy

U.S. Department of Energy

SUBJECT:

facilities.

Verification of Employment

The Department of Labor (DOL) regulations implementing the Energy Employees Occupational Illness Compensation Program Act (EEOICPA) provide, at 20 CFR § 30.105, that after a claimant files a claim under the EEOICPA, the Department of Energy (DOE) shall complete and transmit to DOL a Form EE-5 in which DOE certifies that it concurs with the employment information provided by the claimant, that it disagrees with such information or that it can neither concur nor disagree after making a reasonable search of its records and a reasonable effort to locate records not in its possession. The purpose of this memorandum is to comply with this requirement by informing DOL of certain facilities for which it has been unable to locate any records that would allow it to concur or disagree with allegations concerning employment at such

Requests for verification of allegations of employment at facilities not on either list should continue to be routed to DOE in accordance with the directions set forth in EEOICPA Procedure Manual (Chapter 2-400). DOE has not received requests for verification of allegations of employment at many facilities on the covered facility list. When claims concerning such facilities are received, DOE will search relevant records and amend the lists as necessary (provided by Roger Anders to DOL under separate cover.)

This memorandum will serve as DOE's Form EE-5 for any claim alleging employment at the facilities set forth on List 1 and List 2.

List 1--The facilities designated as List 1 are facilities for which DOE has no records
that would allow it to verify allegations of employment at those facilities, nor has it
been able to locate pertinent records not in its possession. DOL will attempt to obtain
any necessary verification of allegations of employment at such facilities through
means other than DOE records.

• List 2--The facilities designated as List 2 are facilities for which DOE has no records that would allow it to verify allegations of employment at those facilities. However, DOE has information concerning other entities that may be able to locate relevant records concerning allegations of employment at such facilities and has made arrangements for those entities to provide information concerning allegations of employment at the facilities on List 2. DOE will separately provide DOL with instructions for contacting the entities specified on List 2. DOL will contact those entities and request that they provide DOL with information concerning allegations of employment at such facilities and that they forward a copy of such information to DOE.

CONDITION & ICD-9 CODES

The information in this appendix provides ICD-9 Codes for commonly accepted conditions under the Energy Employees Occupational Illness Compensation Program Act. Please note that the following commonly accepted diagnoses are NOT an inclusive listing, nor are they at the most specific 4 –5 digit level in most cases.

This resource provides a starting point to identify a more specific code. In many cases, a range of codes is provided. Please use the Medicode *ICD-9 CM* Publication Chapter 2 (Neoplasms), and Chapter 10 (Diseases of the Genitourinary System) to find the specific code within a range. You will find most of what you need in Chapter 2. Chapter 10 will be helpful with renal conditions.

Note: If an ICD-9 code is given as a single number rather than a range, use that number; there is no need to look in the ICD-9 CM publication.

BERYLLIUM

Condition	ICD-9 Code
Beryllium Sensitivity	V81.4
	Note: this is a special supplementary classification, which indicates circumstances or problems which influence the person's health status but is NOT in itself a current illness or injury.
Chronic Beryllium Disease	503 This category is pneumoconiosis due to
	other inorganic dust, which includes berylliosis or CBD.

SILICOSIS

Condition	ICD-9 Code
Chronic Silicosis	This category is pneumoconiosis due to other, silica or silicates

Tables continue on the next page

COMMON CANCERS

Type of malignant neoplasm	Primary Site	Secondary Site
(Listed in order of system, primary site)	ICD-9 Code	ICD-9 Code
Lip	140	
Salivary glands	142.0 - 142.8	
Pharynx	146.0 - 149.8	
Tonsil	146	
Esophagus	150.0 - 150.5	
Stomach	151.0 - 151.8	
Small intestine	152.0 - 152.8	197.4
Colon	153.0 - 153.8	197.5
Rectum	154.1	
Liver (excluding cirrhosis & hepatitis B*)	155.0	155.2
Bile ducts-intrahepatic	155.1	
Gallbladder	156.0	
Bile ducts-extrahepatic	156.1	
Pancreas	157.0 - 157.8	
Mesothelioma	158 or 163	
Bronchus and lung (other than in situ)	162.2 - 162.9	197.0
Bone & articular cartilage	170.0 - 170.8	198.5
Malignant Melonoma	172	
Breast – female	174.0 - 174.9	
Breast – male	175.0 - 175.9	
Ovary	183.0	198.6
Prostate	185	
Urinary Bladder	188.0 - 188.8	
Ureter	189.2	
Urethra	189.3	
Brain	191.0 - 191.8	198.3
Thyroid	193	
Hodgkin's Disease	201.0 - 201.9	
Lymphomas—other than Hodgkin's*	202.0 - 202.9	
Multiple Myeloma	203.0	
Leukemia (excluding Chronic Lymphocytic	204.0 - 208.0,	
Leukemia*)	except 204.1	

Tables continue on the next page.

^{*} Exceptions apply only to SEC cases

COMMON RENAL DISORDERS

Condition	ICD-9 Code			
Acute glomerulonephritis	580			
Chronic glomerulonephritis	582			
Nephritis	583			
Acute renal failure	584			
Chronic renal failure	585			
Infections of the kidney	590			
Chronic pyelonephritis	590.0			
Acute pyelonephritis	590.1			
Cystitis	595.0			

EEOICPA Resource Book	Appendix F

NIOSH REFERRAL SUMMARY BULLETIN

EEOICPA BULLETIN NO.02-03

Issue Date: April 1, 2002

Effective Date: March 22, 2002

Expiration Date: April 1, 2003

Subject: NIOSH Referral Summary

Background: The Claims Examiners (CEs) in the District Offices are required by EEOICPA Section 7384n(d)(1) (and 20 CFR 30.115(a)) to forward claimant's application package to NIOSH for dose reconstruction. The NIOSH Referral Summary (shown in Attachment 1) replaces the Statement of Accepted Facts (SOAF), which has been used to transmit case files to NIOSH. The SOAF will now be used primarily for medical referrals. The NIOSH Referral Summary is a tabular form containing the medical and employment information accepted by the CE as factual. This form will provide NIOSH with the necessary information to proceed with the dose reconstruction process.

Much of the information in the NIOSH Referral Summary is entered into ECMS. The intent in the future is to automate the NIOSH Referral Summary and have most, if not all, of the fields entered electronically from ECMS.

Reference: Energy Employees Occupational Illness Compensation Program Act of 2000, As Amended, 42 U.S.C. § 7384 et seq., Section 7384n(d)(1) (and 20 CFR 30.115(a)).

<u>Purpose</u>: To notify the District Offices of the NIOSH Referral Summary to be used for sending cases to NIOSH for dose reconstruction.

Applicability: All staff.

Actions:

- 1. Attached to this bulletin is the NIOSH Referral Summary (Attachment 1). This tabular form contains the medical and employment information accepted by the CE as factual.
- The NIOSH Referral Summary should include information on the Energy Employee (EE) including the employee's full name, gender, date of birth, date of death (if applicable), and address and phone number (if applicable). In cases involving survivors (there may be one or more), provide contact information including the full name, address, and phone number. In cases of multiple survivors, indicate which survivor would prefer to be contacted (if known), e.g., because they are the most knowledgeable or accessible by phone. Also, if the CE is aware of other contacts, including other family members, co-workers, representatives, attorneys, and people providing affidavits, the CE should provide the full name, address, and phone number for each person. For all phone numbers discussed above, the phone type should be entered on the form in the block following the phone number, e.g., home, work, cell, day, evening, vacation This is helpful when there are multiple contact numbers listed.
- 3. The NIOSH Referral Summary should include the findings of the CE concerning medical factors. The medical information should include, for each cancer: whether it is primary or secondary (use a "X"), cancer description or type, along with the ICD-9 code, and the date of diagnosis. List all primary cancers, or all secondary cancers if no primary cancers are determined. It is not necessary to list the secondary cancers if there are primary cancers established. For the date of cancer diagnosis, the year of diagnosis is required, but the full date should be entered, if possible. Other covered conditions should be indicated (by a "X") when a SEC cancer claim is submitted, but the claimant is filing for non-SEC cancer medical benefits, or in case of other claim benefits scenarios (details can be provided on the form).
- 4. The NIOSH Referral Summary should include the findings of the CE regarding the employee's verified employment period for each DOE or AWE employment period. For each employment period include: employer/facility name, start and end date at the

facility, employee number (if available from EE-3), dosimetry badge number (if available from EE-3), and the employee's job title (the description is not required). Verified employment could extend beyond the covered employment periods. longer necessary to provide NIOSH with the covered periods, as dose reconstruction will be performed for all verified When applicable, the CE should select the facility employment. name from the Federal Register Notice of List of Facilities Covered by the Energy Employees Occupational Illness Compensation Act of 2000. Also, indicate information related to the method of employment verification (with a "X"), i.e., DOE could not verify employment, employment verification based on affidavit or other credible evidence, or employee worked for a sub/sub contractor not listed in DOE Office of Worker Advocacy facility online database.

5. Other information that is relevant to NIOSH dose reconstruction includes race/ethnicity information (for skin cancer) and smoking history (for lung cancer). These cancers may be either primary or secondary cancers (sites to which a malignant cancer has spread). The CE should develop this information only for individuals with skin or lung cancers. CE should request this information from the claimant early in the process so that it is available when the case is sent to NIOSH. A sample development letter for skin cancer claimants is shown in Attachment 2. A sample development letter for lung cancer claimants is shown in Attachment 3. For the race/ethnicity information, mark one or more of the five designations shown on the NIOSH Referral Summary (Attachment 1). For the smoking history, indicate the smoking level (at the time of cancer diagnosis) using one of the seven designations shown in the NIOSH Referral Summary (Attachment 1). The smoking categories include: Never Smoked - employee who smoked no more than 100 cigarettes before the date of cancer diagnosis; Former Smoker - employee who quit smoking more than five years before the date of cancer diagnosis; and Current Smoker - employee who smoked cigarettes at the time of the cancer diagnosis or who quit smoking fewer than five years before the date of the cancer diagnosis (the cigarette smoking level should be designated as one of the following: less than 10 per day, 10 - 19 per day, 20 - 39 per day, or 40 or more per day).

- 6. For pertinent cases already sent to NIOSH that did not have race/ethnicity or smoking history information, the CEs must develop that information. The National Office will use ECMS to sort cases already sent to NIOSH. The National Office will provide the District Office with a list of cases requiring race or ethnicity information or smoking history. Once received, the DO should send development letters to all of those individuals identified. When the information is received from the claimant, the CE should complete a new NIOSH Referral Summary with the race/ethnicity and smoking history sections completed. The new form should then be forwarded to NIOSH along with the weekly packages.
- 7. Finally, at the bottom of the NIOSH Referral Summary, provide the information related to the CE's completion of this summary, which includes the District Office, the CE's name and direct dial phone number, and the date prepared. On a temporary basis, a review by the supervisor is required. The reviewer's name and the date of the review should be noted.
- 8. The evidence in file must support any finding made by the CE and documented in the NIOSH Referral Summary. The CE should make a copy of the NIOSH Referral Summary and place it in the case file record.

<u>Disposition</u>: Retain until incorporated in the Federal (EEOICPA) Procedure Manual.

PETER M. TURCIC Director, Division of Energy Employees Occupational Illness Compensation

NIOSH Referral Summary Document

DOL Case Number: [Energy Employee (EE) SSN]

Case File Contact Information:

Energy Employee:

EE Full Name: [First, Middle, Last, Suffix]	
EE Gender: [M, F, U]	
Date of Birth: [Month, Day, Year]	
Date of Death (If applicable): [Month, Day,	
Year]	
EE Full Address (If applicable): [Street	
Address, City, State, Zip]	
EE Phone Number (If applicable): [Phone	
Number, Phone Type]	

Survivor(s) (SV) [Create a table for each SV]:

SV Full Name (s) (If applicable): [First,	
Middle, Last, Suffix]	
SV Full Address (If applicable): [Street	
Address, City, State, Zip]	
SV Phone Number (If applicable): [Phone	
Number, Phone Type]	
SV Relationship (If applicable):	
[Relationship]	

Other Contact(s) (OC) [Create a table for each OC]:

OC Full Name (s) (If applicable):	
OC Full Address (If applicable): [Street	
Address, City, State, Zip]	
OC Phone Number (If applicable): [Phone	
Number, Phone Type]	
OC Relationship (If applicable):	
[Relationship]	

Medical and Employment Information:

EE Covered Cancer Information [For each cancer, list the following information]:

Primary [] or Secondary (Metastatic)	[]			
Cancer Description / Type					
Associated ICD-9 Code					
Date of Cancer Diagnosis					

Other Covered Condition:

SEC	Cancer	Claim	, but	filing	for	Non-SEC	cancer	medical	benefits
[]								
Othe	r clair	n for	benefit	ts scer	nario	o []			

Energy Employee Verified Employment History:

Verified Employment Period (List all breaks in employment at the DOE or AWE Facility):

Employer / Facility Name	
Start Date at the Facility (Full	
Date if Possible)	
End Date at the Facility (Full	
Date if Possible)	
Employment Badge Number (If	
available)	
Dosimetry Badge Number (If	
available)	
Job Title (Description not	
required)	

Employer / Facility Name	
Start Date at the Facility (Full	
Date if Possible)	
End Date at the Facility (Full	
Date if Possible)	
Employment Badge Number (If	
available)	
Dosimetry Badge Number (If	
available)	
Job Title (Description not	
required)	

Employer / Facility Name	
Start Date at the Facility (Full	
Date if Possible)	
End Date at the Facility (Full	
Date if Possible)	
Employment Badge Number (If	
available)	
Dosimetry Badge Number (If	
available)	
Job Title (Description not	
required)	

Employment Verification Information Valuable to NIOSH:

[] DOE could not verify employment	
[] Employment Verification based upon	
Affidavit or Other Credible Evidence.	
[] EE worked for a sub/sub contractor	
not listed in DOE Office of Worker Advocacy	
facility online database.	

Other Information Relevant to NIOSH Dose Reconstruction, if Available:

J. 1. 1. 1. 1. 1	
If the claim is for skin	[] American Indian or
cancer or a secondary cancer	Alaska Native
for which skin cancer is a	[] Asian or Native
likely primary cancer, list	Hawaiian or Pacific
one or more of the following:	Islander
	[] Black
	[] White-Hispanic
	[] White-Non-Hispanic
	[] Not given
If the claim is for lung	[] Never smoked
cancer or a secondary cancer	[] Former smoker
for which lung cancer is a	[] Current smoker (?
likely primary cancer, select	cig/day)
one of the following (Note:	[] <10 cig/day
Currently refers to time of	(currently)
cancer diagnosis):	[] 10-19 cig/day
	(currently)
	[] 20-39 cig/day
	(currently)
	[] 40+ cig/day
	(currently)

EEOICPA F	Resourc	e Book
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Appendix G

DOL Information:

District Office	
Claims Examiner Name	
Claims Examiner Phone	
Number	
Date Prepared for NIOSH	
Reviewed By	

U. S. DEPARTMENT OF LABOR

EMPLOYMENT STANDARDS ADMINISTRATION
OFFICE OF WORKERS' COMPENSATION PROGRAMS
DIVISION OF ENERGY EMPLOYEES' OCCUPATIONAL
ILLNESS COMPENSATION
200 CONSTITUTION AVE
ROOM C-4511
WASHINGTON DC 20210



March 28, 2002

Employee:
File Number:

TELEPHONE: (202) 693-0081

JOE CLAIMANT 1234 W. MAIN STREET WASHINGTON, D.C.

Dear Mr. Claimant:

This letter concerns your claim for compensation under the Energy Employees Occupational Illness Compensation Program. We have reviewed the claim and found that the exposed employee was diagnosed with skin cancer.

The next step in determining whether you are eligible for benefits is calculating whether the diagnosed cancer is reasonably related to exposure to radioactive materials during the course of covered employment. The calculation of probability of causation is based on many factors, such as the length of exposure and proximity to radiological sources, safety protection worn, the type of cancer diagnosed, etc.

We calculate the probability of causation by using a computer program to determine whether the diagnosed cancer is reasonably related to exposure during covered employment. For certain types of cancer, such as skin cancer or a cancer which has spread to more than one location in the body, the computer program requires that we include information about the exposed employee's race or ethnic identification as an additional factor in order to complete the calculation.

Therefore, we are asking you to complete the attached questionnaire in full and return it to the address that appears at the bottom of the questionnaire. Please return the questionnaire within 30 days to avoid any delay in the claims process.

It is important that you complete the questionnaire and return it to us so that we can perform the probability of causation calculation. If we do not receive a fully completed questionnaire, we will be unable to perform a calculation of probability. Without a calculation of probability, we will not be able to determine whether you are entitled to benefits under this program and no award of benefits will be made.

Remember as the claimant, it is ultimately your responsibility to submit the necessary information to establish a claim under the EEOICPA. If you have any questions or concerns, please contact the District Office at XXX-XXXX-XXXX or fax XXX-XXXX.

Sincerely,

Claims Examiner

Employee:
File Number:

The National Institute for Occupational Safety and Health (NIOSH) has developed a computer program known as the Interactive Radioepidemiological Program (IREP) that is used to calculate the probability of causation between a diagnosed cancer and employment. More information can be obtained about this program by contacting NIOSH at 1-800-35-NIOSH.

For skin cancer claims, racial or ethnic identification is necessary to accurately perform the IREP calculation. It is a required element of the computer program. In order to proceed with a determination of causation, please mark the box(es) that best match(es) the racial or ethnic identification of the employee named above:

American Indian or Alaskan Native
Asian, or Native Hawaiian or Other Pacific Islander
Black or African Decent
Hispanic
White or Caucasian

Any person who knowingly makes any false statement, misrepresentation, concealment of fact or any other act of fraud to obtain compensation as provided under the EEOICPA or who knowingly accepts compensation to which that person is not entitled is subject to civil or administrative remedies as well as felony criminal prosecution and may, under appropriate criminal provisions, be punished by a fine or imprisonment or both.

EEOICPA Reso	urce Bo	ok				Appendix (
I certify th	at the	informat	ion pro	vided is	accurate and	true.
Print Name						
Signature _						
Date						
Return to: [Insert	District	Office	address]		

U. S. DEPARTMENT OF LABOR

EMPLOYMENT STANDARDS ADMINISTRATION
OFFICE OF WORKERS' COMPENSATION PROGRAMS
DIVISION OF ENERGY EMPLOYEES' OCCUPATIONAL
ILLNESS COMPENSATION
200 CONSTITUTION AVE
ROOM C-4511
WASHINGTON DC 20210
TELEPHONE: (202) 693-0081



March 28, 2002

Employee:
File Number:

JOE CLAIMANT 1234 W. MAIN STREET WASHINGTON, D.C.

Dear Mr. Claimant:

This letter concerns your claim for compensation under the Energy Employees Occupational Illness Compensation Program.

We have reviewed the claim and found that the exposed employee was diagnosed with one of the following:

- Primary Trachea
- Bronchus
- Lung

The next step in determining whether you are eligible for benefits is calculating whether the diagnosed cancer is reasonably related to exposure to radioactive materials during the course of covered employment. The calculation of probability of causation is based on many factors, such as the length of exposure and proximity to radiological sources, safety protection worn, the type of cancer diagnosed, etc.

We calculate the probability of causation by using a computer program to determine whether the diagnosed cancer is reasonably related to exposure during covered employment. For a claim involving primary trachea, bronchus, or lung cancer or cancers that have spread to more than one location in the body, the computer program requires that we include information about the employee's smoking history prior to the diagnosis of cancer.

Therefore, we are asking you to complete the attached questionnaire in full and return it to the address that appears at the bottom of the questionnaire. Please return the questionnaire within 30 days to avoid any delay in the claims process.

It is important that you complete the questionnaire in full and return it to us so that we can perform the probability of Appendices -101

causation calculation. If we do not receive a fully completed questionnaire, we will be unable to perform a calculation of probability. Without a calculation of probability, we will not be able to determine whether you are entitled to benefits under this program and no award of benefits will be made.

Remember as the claimant, it is ultimately your responsibility to submit the necessary information to establish a claim under the EEOICPA. If you have any questions or concerns, please contact the District Office at XXX-XXXX-XXXX or fax 202-693-1465.

Sincerely,

Claims Examiner

diagnosis

Employee: File Number:

Check the box that best describes the smoking history of the byee named above.
Never Smoked - Employee who smoked no more than 100 cigarettes before the date of cancer diagnosis.
Former Smoker - Employee who quit smoking more that five years before the date of cancer diagnosis
Current Cigarette Smoker - Employee who smoked cigarettes at the time of the cancer diagnosis or who quit smoking fewer than five years before the date of the cancer

If you checked Current Cigarette Smoker above, please check the box below that corresponds with the number of cigarettes smoked per day at the time of the cancer diagnosis:

Less than 10 per day
10 - 19 per day
20 - 39 per day
40+ per day

* Generally 20 Cigarettes Per Pack

false makes any statement, who knowingly person misrepresentation, concealment of fact or any other act of fraud to obtain compensation as provided under the EEOICPA or who knowingly accepts compensation to which that person is not entitled is subject to civil or administrative remedies as well as felony criminal prosecution and may, under appropriate criminal provisions, be punished by a fine or imprisonment or both.

Return to: [Insert District Office address]	EEUICPAI	Resource Bo	UUK				App
Print Name Signature Date Return to: [Insert District Office address]							
Date Return to: [Insert District Office address]	I certify	y that the	e informat	ion prov	rided is	accurate	and tru
Date Return to: [Insert District Office address]	Drint Nam	me.					
Date Return to: [Insert District Office address]	PIIIIC Nai	e					
Date Return to: [Insert District Office address]	Signature	e					
Return to: [Insert District Office address]							
	Date						
	Return to	o: [Insert	District	Office	address]		
	.00					14	
			<i>y</i> *				

ISSUES CONCERNING CASES SENT TO NIOSH BULLETIN

EEOICPA BULLETIN NO.03-03

Issue Date: October 4, 2002

Effective Date: September 23, 2002

Expiration Date: September 23, 2003

Subject: Issues Concerning Cases Sent to NIOSH

Background: Section 20 C.F.R 30.115(a) of the interim final regulations currently provides that the Office of Workers Compensation Programs (OWCP) will forward eligible claimant application packages to HHS for dose reconstruction. This Bulletin provides additional details related to issues with the NIOSH Referral Summaries sent to NIOSH. For many issues this information reiterates or expands on information supplied in Bulletin 02-03, which was subsequently incorporated into Section 7 of Chapter 2-600 of the Procedure Manual. The last issue listed below alters previous guidance as a result of NIOSH experience gained during the dose reconstruction process.

The items addressed below were discussed in a telephone conference call between DOL National Office staff and NIOSH staff on September 10, 2002, and in subsequent follow-up discussions.

The primary corrective actions for most of these issues involve better quality control during the compilation of the NIOSH Referral Summary, including review by a supervisor or Senior CE before sending the form to NIOSH (required in the Procedure Manual, Chapter 2-600, Section 7(e)).

Reference: Interim final regulation 30 CFR 30.115(a); Procedure Manual, Chapter 2-600, Section 7; and EEOICPA Bulletin 02-03. <u>Purpose</u>: To address issues concerning NIOSH Referral Summaries sent to NIOSH.

Applicability: All staff.

Actions:

The following issues were raised concerning NIOSH Referral Summaries. Corrective actions are discussed for each issue.

- 1. Transposition errors have occurred on some NIOSH Referral Summaries. It appears that some information on the Referral Summaries may have been filled in by "cutting and pasting" from another source. In the process, some information did not make it into the Referral Summary, e.g., complete addresses or case numbers. The CE should ensure that all sections of the Referral Summary are accurately completed. The signing supervisor or Senior CE should be aware of these potential problems when reviewing the Summary before it is sent to NIOSH.
- 2. Sometimes there are errors in the cancer reported and the proper use of ICD-9 codes. Again, the CE should ensure that the cancer(s) and the appropriate ICD-9 code(s) are accurately reported on the Referral Summary.
- 3. Employment information is not always complete before the Referral Summary is sent to NIOSH. The primary problem is that some employment information has not been verified before sending the Referral Summary to NIOSH. The CE should ensure that all employment dates included on the Referral Summary have been verified before sending it to NIOSH.

For multi-facility sites, the CE should report the site name, not just the contractor name, or use the contractor name followed by the appropriate sites in parentheses. Using Oak Ridge as an example, the CE should clearly state that employment was verified specifically at Y-12, X-10, and/or K-25, not just the contractor name. The CE could state the contractor name followed by all appropriate Oak Ridge sites in parentheses (Y-12, X-10, K-25). If the CE cannot verify which specific site(s) the employee worked, the CE should state this, and list the possible sites.

4. Sometimes the package sent to NIOSH does not contain all of the required information. Specifically, copies of the signed smoking history or race/ethnicity forms are not

always included with the package when appropriate. The CE should ensure that all required information for a case is sent to NIOSH in one package.

If the CE receives no response to the initial questionnaire within 30 days, mail another questionnaire. The CE must inform the claimant in this letter that the case will be administratively closed if the requested information is not supplied within 30 days. In addition, this letter should note that the claimant can answer that he or she does not know the answer to the questionnaire. If another 30 days elapses (60 days total), the CE should inform the claimant by letter that the case will be administratively closed, but that the case can be re-opened if the requested information is supplied.

If the CE has information in the employee's medical record that provides information that could be used to complete the questionnaire and the claimant does not respond, the CE may complete the form using the information in the medical records, and proceed with sending the case to NIOSH. The CE should advise NIOSH in these instances that the information was obtained from medical evidence. In addition, if information in the medical record contradicts information obtained on the questionnaire the CE should pursue clarifying the discrepancy with the claimant prior to referral to NIOSH.

5. Sometimes CEs obtain additional information on a case after it has been referred to NIOSH. This additional information has been forwarded to NIOSH inconsistently. Almost 2,000 documents containing supplemental information have been received from the four District Offices. This represents a significant workload on the NIOSH staff, and thus a uniform system of referring revised information is necessary.

CEs should not make amendments to the NIOSH Referral Summary by resubmitting the entire form. Simply "cut and paste" the appropriate block from the Referral Summary (e.g., EE Covered Cancer Information or Verified Employment Period) into a Word document, fill in the correct information, and send a hard copy to NIOSH. Please title the sheet "Amended NIOSH Referral Summary Information" and include the employee's name and DOL case number (Energy Employee SSN). Please clearly mark any amendments and

separate them from Referral Summaries that are submitted with the DO's weekly package to NIOSH.

If the CE needs to submit information not required in the NIOSH Referral Summary, such as additional medical information, please label this information as supplemental when it is sent to NIOSH with the weekly transmittal.

- 6. CEs are not always responsive to NIOSH inquiries. All calls from NIOSH are to be handled as expeditiously as possible. If a CE must do additional research to respond to a NIOSH claims specialist, the CE must advise the specialist of the status of the response and keep the specialist informed in a timely manner. Currently NIOSH needs to process the NIOSH Referral within 1.5 weeks (i.e., quality review the batch and send a request to DOE for dose data) and NIOSH would like to resolve any issues before sending the DOE request.
- 7. Not all DOs use the NIOSH Referral Summary format contained in the Procedure Manual. All of the DOs must use the NIOSH Referral Summary format contained in the Procedure Manual, Chapter 2-600, Exhibit 1. NIOSH personnel are familiar with the standard format, which DOL developed in association with them. This format assists them in their data entry.
- 8. Some duplicate Referral Summaries have been sent to NIOSH. The CE needs to ensure that the names and case numbers are accurate on the NIOSH Referral Summary so that duplicates are not sent to NIOSH.
- 9. DOL must begin to send NIOSH copies of the recommended and final decisions in cases where they have done a dose reconstruction. The CE is to send a copy of the recommended decision to NIOSH. The appropriate hearing representative in the FAB unit at the District Office or National Office should send a copy of the final decision to NIOSH, including those that have involved a hearing. The recommended and final decisions should be sent as part of the weekly package from the DO to NIOSH.
- 10. There have been a few instances when NIOSH has not been informed of changes in a case, e.g., the death of the employee. The CE should ensure that NIOSH is kept informed of any changes in cases that are at NIOSH for dose reconstruction.

11. NIOSH has recently identified that it is not necessary for the CE to list persons other than claimants and authorized representatives (lawyers or power of attorneys) on the NIOSH Referral Summary. NIOSH may identify coworkers and/or other contacts associated with the case during the dose reconstruction process. These types of other contacts will be added to the case by NIOSH at a later point.

<u>Disposition</u>: Retain until incorporated in the Federal (EEOICPA) Procedure Manual

PETER M. TURCIC Director, Division of Energy Employees Occupational Illness Compensation

Distribution List No. 1: Claims Examiners, Supervisory Claims Examiners, Technical Assistants, Customer Service Representatives, Fiscal Officers, FAB District Managers, Operation Chiefs, Hearing Representatives, District Office Mail & File Sections

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Appendix G

STATUTORY VENDOR BULLETIN

EEOICPA BULLETIN NO.02-07

Issue Date: May 7, 2002

Effective Date: May 7, 2002

Expiration Date: May 7, 2003

<u>Subject</u>: Covered time frames for the eight statutory beryllium vendors.

Background: The Energy Employees Occupational Illness
Compensation Program Act (EEOICPA) specifically identifies eight
corporate entities as beryllium vendors. In doing so, the Act
has been interpreted to expand coverage to any employee engaged
in beryllium related employment activities occurring
concurrently with any period that the company was processing
beryllium for the Department of Energy (DOE). These beryllium
vendors include the following: Atomics International; Brush
Wellman, Incorporated and its predecessor, Brush Beryllium
Company; General Atomics; General Electric Company; NGK Metals
Corporation and its predecessors, Kawecki-Berylco, Cabot
Corporation, Berylco, and Beryllium Corporation of America;
Nuclear Materials and Equipment Corporation; StarMet Corporation
and its predecessor, Nuclear Metals, Incorporated; and Wyman
Gordan, Incorporated.

While the EEOICPA specifically designates these eight corporate entities as beryllium vendors, it is silent on the issue of when each was producing or processing beryllium for sale to, or use by, the DOE. Given this situation, it is within the purview of the Division of Energy Employees Occupational Illness Compensation (DEEOIC) to establish the covered time frames for the statutory beryllium vendors.

The National Office of the DEEOIC has reviewed records maintained by the Department of Energy. Based on this review, the covered time frame for each statutorily named beryllium vendor has been decided. Provided as an attachment to this bulletin is a list of the designated statutory vendors and the corresponding covered time frame for each (Attachment 1). The attachment provides the name of the beryllium vendor, a description of the vendor and a summary of the evidence used to establish the effective date.

The effective dates of coverage are to be used by the Claims Examiner (CE) in determining whether or not an employee, contractor or subcontractor was present at a designated beryllium vendor during a time when the vendor engaged in producing or processing beryllium for use by the Department of Energy.

Reference: 42 USC § 73841 (6) and (7)

<u>Purpose</u>: This bulletin serves to enumerate the covered time frames for the eight statutory vendors named in the EEOICPA. In addition, it provides procedure clarification concerning the use of these time frames in determining covered beryllium employment.

Applicability: All Staff

Actions:

- 1. Upon receipt of a claim for compensation, the CE reviews the EE-3 Employment History form to determine whether any period of employment for a statutory beryllium vendor is claimed. Consideration should also be granted to contractors or subcontractors of the named vendor.
- 2. If there is any indication provided on the EE-3 that the named individual was employed at a statutory vendor as an employee, contractor or subcontractor, the CE must verify the employment. The CE should follow the normal routine established in the procedure manual and program bulletins for verifying employment. It is not necessary for the CE to verify the entire period of claimed employment with a beryllium vendor. Once the

CE has verified that the individual was employed during any period of covered employment, the CE need not attempt to verify additional claimed employment.

If a claimed period of employment is verifiable and the employee was an employee, subcontractor or contractor of a statutory vendor, the CE must determine whether any period of verified employment occurred during a time when the vendor was engaged in processing or producing beryllium for the DOE. It is only necessary for the CE to establish one instance where the period of verified employment overlaps a covered time frame for the named vendor. The CE must consider the fact that these particular eight statutory vendors have been specifically designated in the statute as covered beryllium vendors. A vendor may contain many different facilities located in various The Act does not limit the covered employer to the particular facilities, thus employment with any facility of a statutory vendor during a period when the vendor was concurrently processing beryllium for the DOE is covered. is true even if the employee was engaged in processing beryllium unrelated to any DOE operation.

The CE should use the information provided in Attachment 1 in making this determination. The CE should compare the dates of verified employment to the dates that have been determined by the National Office to be the time frame when the vendor was engaged in beryllium work for the Department of Energy. If any period of verified employment falls within the covered time frame for the statutory vendor, the CE can proceed with a finding that the employee is a covered beryllium employee as defined in 42 USC § 73841 (7). If the period of verified employment falls completely outside of the covered time frame for the vendor, the CE should follow the procedure for expanding covered time frames (See EEOICPA Bulletin 02-06).

4. If the claimant desires to review the records maintained by the National Office in regard to the covered time frames for the statutory vendors, a signed written request must be submitted to the appropriate district office. The district office will forward any such request directly to the National Office.

<u>Disposition</u>: Retain until incorporated in the Federal (EEOICPA) Procedure Manual

PETER TURCIC
Director, Division of
Energy Employees Occupational Illness Compensation

Distribution List No. 1: Claims Examiners, Supervisory Claims Examiners, Technical Assistants, Customer Service Representatives, Fiscal Officers, FAB District Managers, Operation Chiefs, Hearing Representatives, District Office Mail & File Sections

Statutory Beryllium Vendors Covered Time Frames

1. Atomics International 1954-1966

Atomics International was contracted by the AEC in the late 1940s to design and test nuclear reactor fuel. Beginning in 1954, some of the work for the contracts was performed at the Van Own building at the Atomics International in Canoga Park. There was a machine shop at this location that processed beryllium components. The last document establishing a beryllium relationship between Atomic International and AEC is an accident report from 1965-66.

Supporting Documentation			
1954	The start date is established in a Tiger Team Assessment from April 1991. They reported that DOE Rockwell's Canoga Park facility (Atomics International was a component of North American Aviation. The parent company eventually became Rockwell International) was used starting in 1954 to work on reactors. This work was conducted in a building where beryllium machining took place.		
1966	A report from the AEC lists all accidents and incidents in AEC facilities involving radioactive material. Included in the document is a description of an accident that occurred when two employees were moving an irradiated beryllium temperature probe at the Canoga Park facility.		

2. Brush Wellman Inc. and Brush Beryllium Company 1943-2001

Summary Description

Brush Wellman was the largest producer of beryllium related materials used by the AEC. The first contract that was made for the company to provide beryllium metal and beryllium fluoride was dated August 18, 1943. The last shipment of beryllium products to an organization linked to the atomic weapons production was 04/10/2001. This was reported to the Dept. of Energy in a listing provided by the company. There is a large pool of documentation supporting beryllium production for AEC and Dept. of Energy between the start and end dates.

Supporting Documentation			
1943	Excerpt from the Manhattan District History reveals the first contract for beryllium metal and beryllium fluoride was entered into effect on August 18, 1943.		
2001	Contract listings from the Brush Wellman company describe shipments of beryllium products to Los Alamos National Lab through April 10, 2001.		

3. General Atomics 1959-1967

Summary	Description
(EBOR). T General Ato General Ato	omics was involved in the Experimental Beryllium Oxide Reactor Project this was a project to develop a use for beryllium in gas-cooled reactors. Omics was awarded the program in January 1958. In September, 1959, omics began using beryllium oxide in the project. The EBOR project was in FY 1967.
Supporting	Documentation
1959	In a description of the Experimental Beryllium Oxide Reactor Project, a background summation of the project reveals that General Atomics was awarded the project and that use of beryllium oxide began in 1959. This description was included in a Memorandum from the Director of the Division of Reactor Development and Technology.
1967	The same memo as above recommends the termination of the EBOR project in 1967 due to technical problems and other uncertainties

4. General Electric 1951-1970

Summary	Description
-	ment of Energy relationship with General Electric in Lockland, Ohio, starts in t of the Aircraft Nuclear Propulsion Project. The relationship is shown to 1970.
Supporting	g Documentation
1951	Aircraft Nuclear Propulsion Facility - Evendale indicates that General Electric was conducting research and development of the aircraft nuclear propulsion project. This was being supported by the Air Force and the AEC.
1951	Memo describes that 2300 pound of beryllium fluoride has been sent to X-10 for use in the aircraft reactor program.
1954	Lockland Area Office memo describes the use of beryllium and beryllium compounds under the General Electric Company contract.
1960	Atomic Energy Commission Toxic Hazards of Beryllium As Related to the Reactor Development Program (Appendix c).
1970	A memo from the Acting Director of Materials Licensing indicates that the existing AEC contract with GE is in the process of termination. Dated June 11, 1970

5. NGK Metals Corporation and Predecessors 1943-1979

Summary Description

NGK and its predecessors produced beryllium for use by the AEC. This relationship began in 1943 as part of the Manhattan Project. The Beryllium Corporation in Hazelton was asked by representatives of the Manhattan Engineering Program to conduct analysis of beryllium. By 1979, only Brush Wellman and Kawecki-Berylco were processing beryllium for the AEC. In September, 1979, KBI terminated its beryllium metal production lines.

The NGK predecessor organizations include the following entities:

- ♦ Berylco
- ♦ Kawecki-Berylco
- ♦ Cabot Corporation
- Beryllium Corporation of America.

Supporting	Documentation		
1943	An excerpt from the Manhattan District History (Addendum 5.16) notes that on August 23, 1943, Lt. Col. Ruhoff to Mr. Gravely, Beryllium Corporation, that an analysis of beryllium material be conducted by the company. This is the first instance of contact between the Manhattan Engineering Project and the Beryllium Corp to engage in work connected to beryllium material		
1946	An excerpt from the Manhattan District History (pg. K-17) reveals that Beryllium Corporation of Reading, PA entered into contract to supply AEC with 1,000 pounds of high purity beryllium metal. Although the evidence suggests a contract was never finalized, there is no evidence to support a argument that there was absolutely no beryllium produced for the AEC under those preliminary arrangements.		
1947	A monthly status and progress report from New York operations dated 12/8/1947, noted the construction of a beryllium casting plant at the Beryllium Corp in Reading, PA.		
1979	End date established in September, 1979. An Information Memorandum from Director of Military Operations to Secretary of Dept. of Energy describes the termination of KBI product lines.		

6. Nuclear Materials and Equipment NUMEC 1960-1968

Summary Description			
į	listed a statutory beryllium vendor under the EEOICPA. The company raze materials for use at the Hanford operations. Braze contains zircaloy alloy am powder.		
Supporting	Documentation		
1960	A December 3, 1959 Office Memorandum describes a contract that would be coming into effect in 1960 to supply beryllium coatings for UO2.		
1960	Atomic Energy Commission Toxic Hazards of Beryllium As Related to the Reactor Development Program (Appendix c).		
1961	Regulatory Activities Document indicates that NUMEC was licensed for the production of plutonium-berllium neutron sources.		
1962	NUMEC correspondence dated February 19, 1963 reveals contracts existed with the AEC through at lease1962		
1965	DOE notes indicate that an order for 5000 braze rings was make in September 1965. (No primary source documents are in file)		
1968	An "Information Report on NUMEC Powder Metallurigical Braze Rings" dated March 4, 1968 provides a summary of all of the information to date concerning braze rings fabricated by NUMEC. The report indicates that to date the AEC committed \$84,000 in purchase of powered compacts with NUMEC.		

7. StarMet Corporation and its Predecessor Nuclear Metals 1954-1986

Summary	Description
in a variety	iclear Metals originated out of a MIT laboratory operation. MIT was involved of beryllium related operations. Nuclear Metals assumed control of the MIT in 1954. Nuclear Metals produced beryllium products for the AEC until
Supporting	Documentation
1954	In a memo discussing a claim for compensation involving a patient with beryllium disease, there is a discussion of the fact that on July 1, 1954, Nuclear Metals took over the MIT beryllium operation.
1984	A September 6, 2001 correspondence noted that Nuclear Metals Incorporated was the sole supplier of Beryllium Braze rings 1962-1984.
1986	An October 11, 2001, letter to Roger Anders reveals that in 1983, Nuclear Metals, Inc received a three-year sub-contract to produce beryllium. Final delivery was made in 1986

8. Wyman Gordon 1959-1965

Summary Description
The dates for Wyman Gordon are derived from notes taken by an employee of the
Department of Energy. The notes were taken at a classified records center. While the
employee was able to review documents that establish covered dates 1959 to 1965, the

Supporting Documentation

1959-1965 DOE employee notes

source documents could not be copied.

SAMPLE REQUEST FOR RECA AWARD LETTER

	U.S. Department Of Labor Employment Standards Administration
	Office Of Workers' Compensation Programs [District Office Address]
	<u>Date</u> <u>File Number:</u>
	Name of Claimant Address of Claimant
	Dear [Name of Claimant]
7	This letter is about your claim for compensation.
	On August 15, 2001, you submitted an EE-1 Claim for Benefits Under the Energy Employees Occupational Illness Compensation Program Act. You claimed that you have developed[illness] as a result of your employment as a uranium worker with[employer].
	Section 3630 of the Energy Employees Occupational Illness Compensation Program Act (EEOICPA) establishes that beneficiaries of \$100,000 under section 5 of Radiation Compensation Exposure Act (RECA) can receive an additional \$50,000 and medical benefits.
	The District Office has reviewed all the evidence presented with your claim. In order to establish a claim, we need a copy of the "Award" Letter that you were sent from the Department of Justice informing you that your claim for compensation under RECA has been approved in the amount of \$100,000. We also need you to attach a Privacy Act release so we can verify your award with the Department of Justice.
	As the claimant, it is your responsibility to submit the evidence needed to establish a claim under the Energy Employees Occupational Illness Compensation Program Act. You have 30 days from the date of this letter to provide the requested information.
	If you have any questions or concerns, please contact the District Office at 202-555-8989 or fax 202-555-8999.
	Sincerely,
	[Your name] Claims Examiner Attachment: Privacy Act Release [Note: not shown in this version of the training material]

- material points and a second	EEOICPA Resource Book	Appendix I
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EXAMPLE RECOMMENDED DECISION LETTER

[Although based on a real case, this example is fictional] U.S. DEPARTMENT OF LABOR

EMPLOYMENT STANDARDS ADMINISTRATION

OFFICE OF WORKERS' COMPENSATION PROGRAMS DIVISION OF ENERGY EMPLOYEES' COMPENSATION

214 N HOGAN STREET, SUITE 910 JACKSONVILLE, FL 32202

COVERED EMPLOYEE: Jared Zaritsky

COVERED CLAIMANT: Flora B. Zaritsky

FILE NUMBER: 111-22-3333

DATE OF FILING: October 11, 2001

DATE OF ISSUANCE: January 11, 2002

NOTICE OF RECOMMENDED DECISION

This is a Recommended Decision of the District Office concerning your claim for compensation under the Energy Employees' Occupational Illness Compensation Program Act (EEOICPA). The District Office recommends acceptance of your claim for survivor benefits.

STATEMENT OF THE CASE

You filed a claim on October 11, 2001 seeking survivor benefits authorized under the Energy Employees' Occupational Illness Compensation Program Act. You submitted evidence that your late husband, Jared Zaritsky, was employed at the K-25 gaseous diffusion plant (GDP) in Oak Ridge, Tennessee. On 11/30/01 the Department of Energy (DOE) confirmed that Jared Zaritsky was employed at the K-25 GDP during the following time periods: 03/02/45 – 07/11/48; 01/22/53 – 02/28/62; and 03/16/73 – 08/02/92. During his employment at the K-25 GDP Jared Zaritsky was monitored through the use of dosimetry badges for exposure to external parts of the body to radiation.

The submitted medical evidence confirms that Jared Zaritsky was diagnosed with lung cancer on 07/19/92. The surgical pathology report by Dr. Anya B. Kaminsky, detailing the findings from a transbronchial biopsy performed on 06/22/92, showed evidence of the presence of poorly differentiated carcinoma. On 07/17/92, Dr. Richard Seaman diagnosed a primary inoperable, poorly differentiated, non-small cell carcinoma of the lung. A short time later, on 09/14/92, Jared Zaritsky died and the death certificate lists lung cancer as one of the conditions leading to the immediate cause of death.

The death certificate, signed 09/14/92, documents that you were the spouse of Jared Zaritsky at the time of his death. A marriage certificate shows that the wedding ceremony took place on 06/04/45.

FINDINGS OF FACT

- 1. Your claim for benefits on behalf of Jared Zaritsky was filed on October 11, 2001.
- 2. Jared Zaritsky was employed at the K-25 GDP in Oak Ridge, Tennessee for more than an aggregate 250 workdays prior to February 1, 1992. The DOE confirms this employment for the following time periods: 03/02/45 07/11/48; 01/22/53 02/28/62; and 03/16/73 08/02/92. This establishes eligibility as a member of the Special Exposure Cohort.
- 3. Jared Zaritsky was employed at the K-25 GDP in Oak Ridge, Tennessee and was monitored through the use of dosimetry badges for exposure at the plant of the external parts of his body to radiation.
- 4. Medical evidence establishes that Jared Zaritsky was diagnosed with lung cancer on 07/19/92 and all the evidence is consistent with this diagnosis. Accordingly, it is resolved that Jared Zaritsky contracted lung cancer. Lung cancer (other than *in situ* lung cancer that is discovered during or after a post-mortem exam) is a Special Exposure Cohort specified cancer.
- 5. Your husband died on 09/14/92 and you were his wife at the time of his death and are his widow.
- 6. You and your husband were married for more than one year immediately before Jared Zaritsky's death. The Zaritskys were, in fact, married for over 47 years prior to Jared Zaritsky's death.
- 7. You are the only survivor of Jared Zaritsky eligible for compensation.

CONCLUSIONS OF LAW

- 1. Jared Zaritsky was a member of the Special Exposure Cohort, as that term is defined in § 3621(14) of the EEOICPA, and Jared Zaritsky contracted a specified cancer as that term is defined in § 3621(17) of the EEOICPA.
- 2. Jared Zaritsky's claim, filed by Flora B. Zaritsky, establishes a compensable claim in the amount of \$150,000 pursuant to § 3628(a) of the EEOICPA.
- 3. You are the only person eligible to receive compensation as a survivor of Jared Zaritsky, as that term is defined § 3628(e) of the EEOICPA.

Cecilia Woods Senior Claims Examiner

[Notice of Appeal Rights would be included on the next page]

EEOICPA Re	source Book		Арр	endix

SIMULATED SAMPLE ORISE REPORT

ORISE Report (Simulated Sample)

Page 1 of 1

Home	Search ORISE	Change Password	Logon
(Name	e)		
Back			

Facility	
X10-X10 (X10 ONLY ON SS	3)

Facility	Hire/ Terminate	Date	Dept. Code	Job Title	Badge Num.
X10 - 10 (X10 ONLY ON SSS)	-	01/21/1959	3078	OPERATORPOWER	12361
X10 - 10 (X10 ONLY ON SSS)	Hired	01/21/1959	<u> </u>	-	-
X10 - 10 (X10 ONLY ON SSS)	-	06/28/1965	3077	-	-
X10 - 10 (X10 ONLY ON SSS)	-	07/04/1968	3081	-	-
X10 - 10 (X10 ONLY ON SSS)	-	04/17/1978	3016	POWER EQUIPMEN	_
X10 - 10 (X10 ONLY ON SSS)	-	04/01/1980	•	-	07151
X10 - 10 (X10 ONLY ON SSS)	-	10/05/1981	3015	POWER EQUIPMEN	-
X10 - 10 (X10 ONLY ON SSS)	-	05/01/1990	3017	SAFETY SPECIAL	-
X10 - 10 (X10 ONLY ON SSS)	-	01/01/1991	-	-	-
X10 - 10 (X10 ONLY ON SSS)	-	03/01/1991	3024	-	
X10 - 10 (X10 ONLY ON SSS)		04/29/1991		TRAINING ASSOC	-
X10 - 10 (X10 ONLY ON SSS)		05/01/1991		TRAINING COORD	-
X10 - 10 (X10 ONLY ON SSS)	Terminated	12/31/1992	-	-	- -
X10 - 10 (X10 ONLY ON SSS)	-	01/01/1993	-	-	007151

	EEOICPA Resource Book
- Chair de-Indiana	

Appendix K

NIOSH LETTER ABOUT CLL



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

National Institute for Occupat Safety and Health Robert A. Taft Laboratories 4676 Columbia Parkway Cincinnati, OH 45226-1998

Phone: 513-841-4498 Fax: 513-458-7125

June 20, 2002

Pete Turcic
Department of Labor
Office of Energy-Related Compensation
200 Constitution Avenue, N.W.
Washington, DC 20210

Dear Mr. Turcic:

RECEIVED OWCP.

2002 JUN 24 P 3: 4:

DIVISIGN OF EEDICP

U.S. DOL

WASHINGTON, D.C.

The Department of Health and Human Services (DHHS) published a final rule on Guidelines for Determining the Probability of Causation Under the Energy Employees Occupational Illness Compensation Program Act of 2000 on May 2, 2002 (42 CFR 81). Two sections of this final rule contain provisions dealing with chronic lymphocytic leukemia (CLL):

Section 81.21 Cancers requiring the use of NIOSH-IREP

(a) DOL will calculate probability of causation for all cancers, except chronic lymphocytic leukemia as provided under Section 81.30, using NIOSH-IREP.

Section 81.30 Non-radiogenic cancers

The following cancers are considered non-radiogenic for the purposes of EEOICPA and this part. DOL will assign a probability of causation of zero to the following cancers:

(a) Chronic lymphocytic leukemia (ICD-9 code 204.1)

The NIOSH-IREP does not include a dose response model for CLL. This is because no elevation of CLL incidence has been observed in studies of populations exposed to external and internal ionizing radiation. In addition to these studies, most expert committees have listed CLL as a cancer that appears non-radiogenic. In summary, CLL has not been shown to be associated with radiation exposure but is strongly associated with attained age.

Because of the fact that any EEOICPA claim where CLL is the only cancer will always produce a probability of causation of zero, there is no basis for transferring such claims to NIOSH for dose reconstruction.

Sincerely,

Larry Elliott, Director, CIH, MSPH Office of Compensation

Analysis and Support

Wellett

EEOICPA	Resource	Воо

Appendix M

NIOSH DOSE RECONSTRUCTION QUESTIONS

List of Information to be Covered in Dose Reconstruction Telephone Interviews

	in Dose Reconstruction Telephone Interviews
■ Genei	al Employment History
	List jobs held with DOE, DOE contractors, or AWEs (include job title, start date, end date, and supervisor's name)
■ Detail	ed Work History
For E	ACH of the jobs listed above, please provide information on the following:
	Number of hours worked per week
	Number of hours per week the job involved potential exposure to radiation and/or radioactive materials
	Buildings/locations in which you worked (include the type of duty performed at each location)
	Types of radioactive material(s) present or processed, and what form(s) (solid, liquid, gas)
	Amount of radioactive materials present or processed (ounces, pounds, kilograms, drums, etc.) over what time period
	Types of production processes involving radioactive materials in the areas you worked
	Types of radiation-generating equipment that were present or used (include description of specific task performed and include information on types of radioactive materials and in what quantities they were used)
	Exposure/contamination control measures used (hoods, gloves, respirators, etc.)
	Whether or not the work was done under a radiation work permitting system (if yes, state the time frame this occurred)

	Radia	tion Monitoring Information
		State whether you or co-workers (working in the same area as you) routinely wore radiation dosimetry badges
		Badge information: how often worn, how often exchanged, and where it was worn
		State whether or not you participated in a biological radiation monitoring program (nasal smears, urine samples, fecal samples, whole body counts)
		State whether you have copies of your dosimeter badge or biological monitoring records
		State whether you routinely surveyed yourself (frisked) for external contamination (if yes, indicate if it was before or after showering)
		State whether there was general area air monitoring for radiation performed in the work environment (if yes, indicate when this occurred)
		State whether there were any radiation surveys taken to characterize potential for external exposure (if yes, indicate when these occurred)
		For claimants who worked with radium and/or thorium (Fernald, Malinckrodt, or FUSRAP claimants in particular), state whether there was radon monitoring in any of the buildings or areas you worked
		State whether you were ever restricted from the workplace or certain job duties because you had reached a radiation dose limit
•	Radiat	tion Incidents
		State whether you were ever involved in a criticality incident involving radiation exposure or contamination
		If yes, indicate: • what happened • when it happened • which radioactive materials were involved • what form was the radioactive material in, what quantity or radioactive material was present • which radiation-generating equipment was involved • where it took place • who was involved • what actions were taken to remedy the exposure contamination
		in actions etc taken to remeat the exposure comminmentor

- your location and activities during the incident, precautions taken to protect you
- types of personal protective equipment used
- length of time exposed during the incident
- chelation therapy or other medical treatments, type of biological monitoring after the incident
- indicate whether you have records of the monitoring

■ Required Medical Screening X-Rays

- ☐ State whether you were ever required to have medical x-rays for this job, as a condition of employment
- \square State whether you have records of these x-rays

■ Other Relevant Information

- ☐ State whether we have missed asking you about any conditions, situations, or practices that occurred during this job which you think may be useful to us in estimating your radiation doses (if yes, describe what has been missed with as much detail as possible, in terms of what occurred, where, when, for how long, and who was involved)
- ☐ State whether you are aware of any records related to the information you have provided that may help us estimate your doses (if yes, indicate the source and/or type of information)

■ Identifying co-workers and Other Witnesses

Identify any co-workers or other witnesses, such as radiation safety specialists from the site where you worked, who can confirm or expand upon the information you have provided

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Appendix M

SAMPLE DOSE RECONSTRUCTION REPORT

NIOSH				OCAS
	nployees O	Dose Reconstr ccupational III m Act (EEOIC	lness Co	
NIOSH (00397)		Social Security No. 730-60-0913	DO	LDistrict Office
Energy Employee Name:	Edwards	Terrence	R. 	09/12/1919
Covered Employment: Cancer:	Non-i lodgkins	15/1981 F Lymphoma 202.0	Blockson Che	nical Company
Dose Reconstruction	on Completed By:	Ellen K. Barr	ett	10:11/2013
Peer Review Comp	deted By:	Elizabeth K. Rol	oinson	10/22/2003
Dose Reconstruction	on Approved By:	Mark H. Hill NO	Selfes	10.23/2003

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Introduction

The Energy Employees Occupational Illness Compensation Program Act of 2000 (EEOICPA), Executive Order No. 13179 and the Radiation Dose Reconstruction Rule (42 CFR § 82)1

EEOICPA established a compensation program to provide a lump sum payment of \$150,000 and medical benefits as compensation to covered employees suffering from designated illnesses incurred as a result of their exposure to ionizing radiation, beryllium, or silica while in the performance of duty for the Department of Energy and certain of its vendors, contractors and subcontractors. This legislation also provided for payment of compensation to certain survivors of these covered employees. In Presidential Executive Order No. 13179, the President designated the U.S. Department of Labor to administer this program for claims by current and former employees of nuclear weapons production facilities and their survivors who seek compensation for cancers caused by radiation exposures sustained in the performance of duty. The Executive Order also directed the Department of Health and Human Services to estimate (reconstruct) the radiation doses received by these employees. The Department of Labor uses the reconstructed radiation dose in evaluating whether the employee's cancer was at least as likely as not related to employment at the facilities covered by EEOICPA. To fulfill the responsibilities assigned to the Department of Health and Human Services, the National Institute for Occupational Safety and Health's (NIOSH) Office of Compensation Analysis and Support (OCAS) completes dose reconstructions using the methods described in the Radiation Dose Reconstruction Rule (42 CFR § 82) for the Department of Labor's use in making compensation decisions.

The Purpose of Radiation Dose Reconstruction

A radiation dose reconstruction is used to estimate the radiation dose received by the specific organ(s) in which a worker developed cancer, particularly when radiation monitoring data is unavailable, incomplete, or of poor quality. Even in instances when radiation dosimetry data is available, it rarely specifies dosage to an organ and often is based on monitoring procedures that do not meet modern standards.

The basic principle of dose reconstruction is to characterize the occupational radiation environment to which workers were exposed using available worker and/or workplace monitoring information. In cases where radiation exposures in the workplace environment cannot be fully characterized based on available data, default values based on reasonable scientific assumptions are used as substitutes.

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EEOICPA recognized that the process of estimating radiation doses would require dealing with uncertainties and limited data and thus required that the government establish methods for arriving at reasonable estimates of radiation dose received by individuals who were not monitored or inadequately monitored for exposures to radiation, or for whom exposure records are missing or incomplete. To the extent that the science and data involve uncertainties, these uncertainties are typically handled to the advantage, rather than to the detriment, of the claimant. NIOSH has used the best available science to develop the methods and guidelines for dose reconstruction. These methods have been reviewed and commented upon by the public, including experts in the field of dose reconstruction, and the presidentially appointed Advisory Board on Radiation and Worker Health.

How Radiation Doses are Reconstructed

NIOSH reconstructs radiation doses by evaluating all available, appropriate data relevant to the employee's radiation exposure. Some examples of data that may be included in the dose reconstruction include, but are not limited to, internal dosimetry (such as results from urinalysis), external dosimetry data (such as film badge readings), workplace monitoring data (such as air sample results), workplace characterization data (such as type and amount of radioactive material processed) and descriptions of the type of work done at the work location. Although the specific methods used for each dose reconstruction can vary, after a claim has been referred by the Department of Labor to NIOSH for a dose reconstruction, NIOSH typically requests the worker's personal radiation monitoring information from the Department of Energy.

Upon receipt of the requested information, at least one voluntary informational interview with the claimant and/or survivors is conducted and a copy of the interview report is sent for their review. After all of the necessary and available information is gathered, a dose is estimated, using the methods in the Radiation Dose Reconstruction Rule. After a NIOSH health physicist reviews the information, methods, and results, the claimant receives a draft copy of the dose reconstruction report and a closing interview, during which the claimant can add any additional relevant information that may affect the dose reconstruction. If the claimant certifies that he/she has completed providing information and that the record for dose reconstruction should be closed, the final dose reconstruction report is sent to the claimant, the Department of Labor, and the Department of Energy.

As applied in the EEOICPA, dose reconstructions must rely on information that can be developed on a timely basis and on carefully stated assumptions. Therefore, the guiding principle in conducting these dose reconstructions is to ensure that the assumptions used are fair, consistent, and well-grounded in the best available science, while ensuring that

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uncertainties in the science and data are handled to the advantage, rather than to the detriment, of the claim when feasible. When dose information is not available, is very limited, or the dose of record is very low, NIOSH may use the highest reasonably possible radiation dose, based on reliable science, documented experience, and relevant data, to complete a claimant's dose reconstruction. In other instances, NIOSH may not need to fully complete a dose reconstruction because a partial dose reconstruction results in an estimated dose which produces a probability of causation of 50% or greater.

How Radiation Dose Reconstructions Are Used in Final Compensation Determinations
The results of a claimant's dose reconstruction are used by the Department of Labor to determine
the probability that a worker's cancer was "at least as likely as not" due to his or her
occupational exposure to ionizing radiation during employment at a covered facility. Criteria and
guidelines for making this determination are established by EEOICPA and the Probability of
Causation Guidelines (42 CFR § 81).2 The dose reconstruction is not the final determination of a
claim, but an interim product that is used by the Department of Labor in making its final

decision. Final determinations are made by the Department of Labor based on standards determined by EEOICPA and its implementing regulations.

Dose Reconstruction Overview

The Office of Compensation Analysis and Support has performed a dose reconstruction for Mr. Edwards in accordance with the applicable requirements of the Energy Employees Occupational Illness Compensation Program Act. The Department of Labor (DOL) has verified that Mr. Edwards worked at the Blockson Chemical Company from February 26, 1951 through December 15, 1981 and that he was diagnosed with non-Hodgkin's lymphoma on September 13, 1993. No dosimetry or bioassay records for Mr. Edwards related to Blockson Chemical's work for the Atomic Energy Commission (AEC, one of the predecessor agencies of the present Department of Energy) could be found. The primary source of information used for this dose reconstruction was the document "Basis for Development of an Exposure Matrix for Blockson Chemical Company" prepared for the EEOICPA project. In accordance with NIOSH documentation, the dose to the highest exposed organ that is not described by ICRP metabolic models was assigned as the appropriate internal dose; in this case, the dose to the skin was used to represent the dose received by the tissues of the lymphatic system. The dose to the remainder organs was assigned as the appropriate external dose. Internal doses were evaluated from the potential exposure starting in 1952 until time of cancer diagnosis in 1993. External doses were evaluated for the years 1952 – 1981. For the purposes of this dose

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reconstruction, Mr. Edwards was given the highest reasonably possible radiation dose using worst-case assumptions related to radiation exposures and intakes, based on current science, documented experience and relevant data. Even under these assumptions, NIOSH has determined that further research and analysis will not produce a level of radiation dose resulting in a probability of causation of 50% or greater. Based on this efficiency process, the maximum estimated dose to the lymph nodes was 0.022 rem from internal exposures and 2.97 rem from external exposures. In accordance with the provisions of 42 CFR 82.10(k),1 NIOSH has determined that sufficient research and analysis have been conducted to consider this dose reconstruction complete.

Information Used

The primary data source utilized for this dose reconstruction was the document "Basis for Development of an Exposure Matrix for Blockson Chemical Company" prepared for the EEOICPA project. It presents the evaluation of information regarding the uranium recovery work performed by Blockson Chemical for the AEC. This document includes reports of uranium extraction work done at Blockson Chemical as well as process information from Blockson Chemical and four uranium mills.4 In addition, limited urinalysis data was available for 25 workers monitored between 1954 and 1958. Conservative (claimant-favorable) values of breathable air concentrations and inhalation times were derived from this information.4 The type of cancer and the date of diagnosis were obtained from the medical records and/or the death certificate submitted by the claimant.

Personal Background Information

The covered employee, Mr. Edwards, began work at the Blockson Chemical Company, Joliet, Illinois, on 2/26/1951 and continued employment until 12/15/1981. Documentation submitted by the claimant verifies that during this period he was employed in a variety of positions, including laborer, mix operator, rock unloader, furnace operator, and truck driver. Based on information cited above, Mr. Edwards 's potential occupational radiation exposures occurred during 1952 - 1981, with resultant internal dose calculated until the time of cancer diagnosis in 1993.

Dose Estimate

External Dose

External dose is received from radiation originating outside of the body and is typically measured by dosimetry worn on the body. External radiation dose may have been delivered quickly (acute exposure) or slowly over a period of time (chronic exposure). Because no radiation monitoring records were found, worst-case assumptions were used to estimate the

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external radiation dose received by Mr. Edwards per the provisions in 42 CFR § 82.10(k)(2).1 The external dose reconstruction was based on source term information, and the claimant-favorable assumptions and parameters are described in a technical basis document.4

Radiation Type, Energy, and Exposure Conditions: Mr. Edwards worked in a variety of positions during his employment at the Blockson Chemical Company. From the records, it was not possible to state whether he was in a position to be exposed to radioactive material or not. Thus, the claimant-favorable assumption was made that he was chronically exposed in close proximity to the source, the yellowcake drums during processing. This assumption will result in an overestimate of Mr. Edwards 's dose. The source was composed of natural uranium in the form of yellowcake, with the most significant radiation for external exposure being photons with energies greater than 250 keV. Photon exposures from contaminated surfaces and assumed annual diagnostic x-rays were also considered to contribute to lymphatic tissue dose (based on the remainder organ dose). In addition, residual radioactivity following the end of Blockson's work for the AEC on March 31, 1962 was assumed to result in additional photon exposures until the end of Mr. Edwards 's employment in 1981. The external doses received by the lymphatic tissues due to submersion in air contaminated with yellowcake dust, and contamination on the skin were negligible, and thus, were not considered in the dose calculations. Table 1 below shows the estimated annual doses to the lymphatic tissue due to photon exposures from a drum of yellowcake. Table 2 shows the estimated annual doses to the lymphatic tissue due to photon exposures from contaminated surfaces. Table 3 shows the estimated annual doses to the lymphatic tissue due to the assumed annual x-rays. Table 4 shows the estimated annual doses to the lymphatic tissue due to exposures to residual radioactivity following the end of Blockson's work for the AEC on March 31, 1962.

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Table 1. Estimated remainder organ doses due to photons emanating from drums of yelloweake.

	Annual Organ Doses due to Photons (rem)			
Year	Photons 30-250 keV	Photons > 250 keV	Total Dose	
1952	1.211:-02	1.481:-02	2.691:-02	
1953	3.211:-02	3.91E-02	7.11102	
1954	3.211:-02	3.911:-02	7.11E-02	
1955	3.21E-02	3.911:-02	7.11E-02	
1956	3.21E-02	3.911:-02	7.11102	
1957	3.211:-02	3.91E-02	7.11E-02	
1958	3.211:-02	3.91E-02	7.11E-02	
1959	3.21E-02	3.911:-02	7.11102	
1960	3.211:-02	3.911:-02	7.11E-02	
1961	3.21E-02	3.911:-02	7.11E-02	
1962	7,701:-03	9.38E-03	1.71E-02	

Table 2. Estimated annual remainder organ doses due to photons from contaminated surfaces.

Year	Annual Organ Doses due to Photons (rem)				
	Photons 30-250 keV	Photons > 250 keV	Total Dose		
1952	6.31E-03	7.52E-03	1.38E-02		
1953	1.67E-02	1.991:-02	3.691:-02		
1954	1.671:-02	1.991:-02	3.69E-02		
1955	1.671:-02	1.991;-02	3.691:-02		
1956	1.671:-02	1.99[:-02	3.69102		
1957	1.671:-02	1.99[:-02	3.691:-02		
1958	1.67E-02	1.991:-02	3.69E-02		
1959	1.671:-02	1.99E-02	3.69E-02		
1960	1.671:-02	1.991:-02	3,691,-02		
1961	1,671:-02	1,991;-02	3,691,-02		
1962	4.011:-03	4.781:-03	8.79103		

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Table 3. Estimated annual remainder organ doses due to photons from the annual diagnostic x-

Year	Annual Organ Doses due to Photons			
gent control of the	(rem)			
1952	0.110 (0.1			
1953	0.110			
1954	0.110			
1955	0.110			
1956	0.110			
1957	0.110			
1958	0,110			
1959	0.110			
1960	0,110			
1961	0.110			
1962	0.110			

Table 4. Annual organ doses due to external exposures to residual radioactivity.

Y car	Annual Organ Doses due to Photons (rem)					
	Photons 30-250 keV	Photons > 250 keV	Total Dose			
1962	1.04E-02	1.2415-02	2.281;-02			
1963	1.67E-02	1.991:-02	3,691;-02			
1964	1.671:-02	1.991:-02	3.69102			
1965	1.671:-02	1.991:-02	3.69[,-02			
1966	1.67E-02	1.991:-02	3.69102			
1967	1.671:-02	1.991:-02	3.69102			
1968	1.671:-02	1.991:-02	3.691:-02			
1969	1.671:-02	1.99E-02	3.69102			
1970	1.67L-02	1.99E-02	3.691:-02			
1971	1.67E-02	1.991(-02	3.691:-02			
1972	1.671:-02	1.991:-02	3.691;-02			
1973	1.67E-02	1.991:-02	3.69102			
1974	1.67E-02	1.991:-02	3.69102			
1975	1.671:-02	1.991:-02	3.691,-02			
1976	1.671:-02	1.99E-02	3.69E-02			
1977	1.67E-02	1.991:-02	3.69102			
1978	1.671:-02	1.991:-02	3.691:-02			
1979	1:671:-02	1.991:-02	3.69102			
1980	1.671:-02	1.991;-02	3.69[,-02			
1981	1.67E-02	1.991:-02	3.691,-02			

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Table 5. Annual internal dose to the skin (surrogate for lymphatic tissue) due to a natural uranium intake rate of 24 pCi/day.

\ \ ear	Annual Dose (rem)
1952	2.611;-05
1953	1.521-04
1954	2.26[-04
1955	2.921-04
1956	3.581-04
1957	4.221(-04
1958	4.861-04
1959	5.50[:404
1960	6.151-04
1961	6.761-04
1962	6.651/-04
1963	6.181/-04
1964	6.121:-04
1965	6,061,-04
1966	6.021(-04
1967	5,981-04
1968	5.961-04
1969	5,901,-04
1970	5.8615-04
1971	5.821,-04
1972	5.801:-04
1973	5.7511-04
1974	5.7111-04
1975	5,671,-04
1976	5.651:-04
1977	5.601,-04
1978	5.561:-04
1979	5.521,-04
1980	5,50[-04
1981	5,451;414
1982	5.421(-04)
1983	5.38[:-04
1984	5,361;-04
1985	5.341:404
1986	5.281:-04
1987	5.241:-04
1988	5.22104
1989	5.171:-04
1990	5.141:-04
1991	5.10104
[00]	5,08[:-04
[99]3	3,521,404

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Dose from Radiological Incidents

No evidence was provided by the claimant, or any other documented source, that any radiological incidents may have occurred during Mr. Edwards 's employment; there are no such incidents reported in the available records cited in Reference 4. Thus, there was no indication of any incident that should be taken into account.

Summary

Mr. Edwards was assumed to have been exposed internally during his employment at the Blockson Chemical Company to an amount of radiation sufficient to result in a dose to his lymphatic tissues of 0.022 rem (based on dose calculated to the skin). He was assumed to have received an external photon dose of 2.97 rem to the lymphatic tissues (based on dose calculated to the remainder organs). The reported dose is a reasonable overestimate of Mr. Edwards 's occupational radiation dose for claim determination purposes. The attachment contains the dose reconstruction summary sheet that will be used by the Department of Labor to make the final probability of causation determination for the claim.

References

- 1. 42 CFR § 82, Methods for Radiation Dose Reconstruction Under the Energy Employees Occupational Illness Compensation Program Act of 2000; Final Rule, Federal Register/Vol.67, No. 85/Thursday, May 2, 2002, p 22314
- 2. 42 CFR § 81, Guidelines for Determining the Probability of Causation Under the Energy Employees Occupational Illness Compensation Program Act of 2000; Final Rule, Federal Register/Vol.67, No. 85/Thursday, May 2, 2002, p 22296
- 3. NIOSH, (2002) Internal Dose Reconstruction Implementation Guideline, Rev 0, OCAS-IG-002, National Institute for Occupational Safety and Health, Office of Compensation Analysis and Support, Cincinnati, Ohio, August 2002
- 4. ORAU Dose Reconstruction Team, *Basis for Development of an Exposure Matrix for Blockson Chemical Company*, Rev. 00, J. Anderson, MJW Corporation, Williamsville, NY, and Matt Smith, Dade Moeller & Associates, Richland, WA, October 2003
- 5. ACJ & Associates and the UK National Radiological Protection Board, Integrated Modules for Bioassay Analysis, (IMBA), Phase 1, Software produced for NIOSH-OCAS as part of the EEOICPA Program, Version 1.0.42, UK, November 2002

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ATTACHMENT 1: IREP Input Tables

Clamart Name ferrence R Edwards	NIOSH ID#	Claimant SSN	DOL District Office	Gender	Birth Year	Year of Diagnosis	Cancer Model	Should all model be ru
	0003978	730-60-0913	CL	Male	1919		oma and multiple n	
	The same and the						(*	
LAIMANT CANCER	DIAGNOSES	UAN PERSONAL PROPERTY OF THE PERSON OF THE P	AND THE PROPERTY OF			THE PERSON NAMED IN		
	Primary Cancer #1	Primary Cancer #2	Primary Cancer #3	Secondary Cancer #1	econdary Cancer #	Secondary Cancer #3		
ancer Type	n-Hodgkins lymphor	N/A	N/A	N/A	N/A	NA		
ate of Diagnosis	9/13/1993	N/A	N/A	N/A	N/A	N/A		
					Control of			-
XPOSURE INFORMA	ATION	English and the Shirt	and the second			& January		
lumber of exposures								
137			The state of the s	Victoria de la Companya de la Compan	المراجع كالمحاولات			
Exposure#	Exposure Year	Exposure Rate	Radiation Type	Dose Distribution Type	Parameter 1	Parameter 2	Parameter 3	
GLANGE MARKET	1952	chronic	alpha	Lognormal	2.61E-05	1.600		
2	1953	chronic	alpha	Lognormat	1.52E-04	1.600		ł
3	1954	chronic	alpha	Lognormal	2.26E-04	1 600		
4	1955	chronic	alpha	Lognormat	2.92E-04	1.600]
5	1956	chronic	alpha	Lognormal	3 58E-04	1.600		
6	1957	chronic	alpha	Lognormal	4.22E-04	1,600	VI. 10 CO. 10 CO	
7	1958	chronic	alpha	Lognormal	4.88E-04	1.600		
8	1959	chronic	alpha	Lognormal	5 50E-04	1 600		
9	1960	chronic	alpha	Lognormal	6.15E-04	1,600		
10	1961	chronic	alpha	Lognormal	8.76E-04	1.600		
11	1962	chronic	alpha	Lognormal	6 65E-04	1,600	0	
12	1983	chronic	alpha	Lognormal	6.18E-04	1.600	Carrier Control	
13	1964	chronic	alpha	Lognormal	6 12E-04	1.600		3
14	1965	chronic	alpha	Lognormal	6.06E-04	1,600		
15	1966	chronic	alpha	Lognormal	6.02E-04	1 600		
16	1967	chronic	olpha	Lognormal	5.98E-04	1.600		
17	1968	chronic	alpha	Lognormal	5.96E-04	1.600		
18	1969	chronic	alpha	Lognormal	5.90E-04	1.600		
19	1970	cnronic	alpha	Lognormal	5.86E-04	1.600		1
20	1971	chronic	alpha	Lognormal	5.82E-04	1.600		1
21	1972	chronic	alpha	Lognormal	5.80E-04	1.600		
22	1973	chronic	alpha	Lognormal	5.75E-04	1.600		
23	1974	chronic	alpha	Lognormal	5.71E-04	1,600		
24	1975	chronic	alpha	Lognormal	5.67E-04	1.600		
25	1976	chronic	alpha	Lognormat	5 65E-04	1.600		
26	1977	chronic	alpha	Lognormal	5.80E-04	1.600		
27	1978	chronic	alpha	Lognormal	5.56E-04	1.600		
28	1979	chronic	alpha	Lognormal	5.52E-04	1 600		
29	1980	chronic	alpha	Lognormal	5.50E-04	1.600		1
30	1981	chronic	alpha	Lognormal	5.45E-04	1 600		1
31	1982	chronic	alpha	Lognormal	5.42E-04	1 600	Andrew Control	
32	1983	chronic	alpha	Lognormal	5,38E-04	1.600		1
33	1984	chronic	alpha	Lognormal	5.36E-04	1,600		1
34	1985	chronic	alpha	Lognormal	5.31E-04	1,600	The second second	
35	1986	cnronic	alpha	Lognormal	5.28E-04	1,600		
36	1987	chronic	alpha	Lognormal	5.24E-04	1 600		1
37	1988	chronic	alpha	Lognormal	5.22E-04	1 600		
38	1989	chronic	alpha	Lognormal	5.17E-04	1,600	ATT THE PARTY OF	
39	1990	chronic	alpha	Lognormal	5.14E-04	1 600		
40	1991	chronic	alpha	Lognormal	5 10E-04	1,600		
41	1992	chronic	alpha	Lognormal	5.08E-04	1.600	may a series	1
42	1993	chronic	alpha	Lognormal	3.52E-04	1.600		
43	1952	cnronic	notons E=30-250ke	Lognormal	0.012	2 700		1
44	1953	chronic	notans E=30-250k	Lognormal	0 032	2.700		
45	1954	chronic	hotons E=30-250ke		0 032	2.700	the state of the s	
46	1955	chronic	hotons E=30-250kg		0 032	2.700		
47	1956	chronic	hctons E=30-250kg		0.032	2,700	1,1457,075	
48	1957	chronic	hotons E=30-250M		0 032	2.700		
49	1958	chronic	hotons E=30-250k		0 032	2 700		
50	1959	chronic	hctons E=30-250kg		0 032	2.700		
51	1960	chronic	notons E=30-250k		0 032	2 700	and the management	
52	1961	chronic	notons E=30-250k		0 032	2.700		
53	1962	chronic	hotons E=30-250k	Lognormal	0 008	2.700		
	1952	chronic	photons E-250ke	Lognormal	0.015	2.700		
5.4	1953	chronic	photons E>250ke		0 039	2.700		
54	1900			Lognormal	0 039	2.700		
55	1054					a-FMW		
55 56	1954	chronic	photons E>250ke					
55 56 57	1955	chronic	photons E=250ke	Lognormal	0.039	2.700		
55 56 57 58	1955 1958	chronic chronic	photons E=250ke\ photons E=250ke\	Lognormal Lognormal	0 039 0 039	2.700 2.700		
55 56 57	1955	chronic	photons E=250ke	Lognormal Lognormal Lognormal	0.039	2.700		8

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					26560	
62	1960	chronic	pnotons E>250keV	Lognormal	0 039	2.700
63	1961	chronic	photons E>250keV	Lognormal	0 039	2.700
84	1962	chronic	photons E>250keV	Lognormal	0.009	2.700
					0 006	4 000
65	1952	chronic	hotons E=30-250ke	Lognormal		
66	1953	chronic	hotons E=30-250ke	Lognormal	0 017	4.000
67	1954	chronic	hotons E=30-250ke	Lognormal	0 017	4,000
68	1955	chronic	hotons E=30-250ke	Lognormal	0.017	4.000
69	1956	chronic	hotons E=30-250ke	Lognormal	0.017	4.000
						4.000
70	1957	chronic	hotons E=30-250ke	Lognormal	0.017	
71	1958	chronic	notons E=30-250ke	Lognormal	0 017	4.000
72	1959	chronic	hotons E=30-250ke	Lognormal	0 017	4.000
73	1960	chronic	hotons E=30-250ke	Lognormal	0.017	4.000
		41114		Lagnormal	0 017	4 000
74	1961	chronic	hotons E=30-250ke	Lognormal		
75	1962	chronic	hotons E=30-250ke	Lognormal	0 004	4.000
76	1952	chronic	photons E>250keV	Lognormal	0 008	4.000
77	1953	chronic	photons E>250keV	Lognormal	0 020	4.000
78	1954	chronic	photons E>250keV	Lognormal	0 020	4.000
79		The second second	photons E>250keV		0 020	4.000
	1955	chronic		Lognormal		
80	1956	chronic	photons E>250keV	Lognormal	0 020	4.000
81	1957	chronic	photons E>250keV	Lognormal	0 020	4.000
82	1958	chronic	photons E>250keV	Lognormal	0 020	4 000
	1959		photons E>250keV	Lognormal	0 020	4.000
83		chronic	PHOTOTO E 250KGV		0.020	4.000
84	1960	chronic	photons E>250keV	Lognormal		
85	1961	chronic	photons E>250keV	Lognormat	0 020	4.000
86	1962	chronic	photons E>250keV	Lognormal	0 005	4.000
87	1952	acule	hotons E=30-250ke	Normal	0 110	0.300
88	1953	acute	hotons E=30-250ke	Normal	0 110	0.300
89	1954	acute	hotons E=30-250ke	Normal	0.110	0.300
90	1955	acute	hotons E=30-250ke	Normal	0.110	0.300
91	1956	acute	hotons E=30-250ke	Normal	0 110	0.300
92	1957	acute	hotons E=30-250ke	Normal	0 110	0.300
	1958				0 110	0.300
93		acute	hotons E=30-250ke	Normal		
94	1959	acute	hotons E=30-250ke	Normal	0 110	0.300
95	1960	acute	hotons E=30-250ke	Normal	0.110	0.300
96	1961	acute	hotons E=30-250ke	Normal	0 110	0.300
97	1962	acute	hotons E=30-250ke	Normal	0 110	0.300
98	1962	chronic	hotons E=30-250ke		0.010	4.000
				Lognormat		
99	1963	chronic	hotons E=30-250ke	Lognormal	0 017	4.000
100	1964	chronic	hotons E=30-250ke	Lognormal	0 017	4.000
101	1965	chronic	hatons E=30-250ke	Lognormal	0.017	4,000
102	1966	chronic	hotons E=30-250ke	Lognormal	0017	4.000
103	1967	cutourc	hotons E=30-250ke	Lognormal	0 017	4.000
		The second secon			0017	4.000
104	1968	chronic	harons E=30-250ke	Lognormal		
105	1969	chronic	hotons E=30-250ke	Lognormal	0.017	4.000
106	1970	chronic	hotons E=30-250ke	Lognormal	0.017	4 000
107	1971	chronic	hotons E=30-250ke	Lognormal	0017	4.000
			notons E=30-250ke		0 017	4.000
108	1972	chronic	MICH S E-30-25 UNG	Lognormal	0 017	4.000
109	1973	chronic	notons E=30-250ke	Lognormal		
1 10	1974	chronic	hotons E=30-250ke	Lognormat	0017	4.000
111	1975	chronic	hotons E=30-250ke	Lognormal	0 017	4.000
112	1976	chronic	hotons E=30-250ke	Lognormal	0 017	4.000
113						
113	1077	chronic	botons Fano. 2504	Lognormal	0.017	
	1977	chronic	hotons E=30-250ke	Lognormal	0 017	4.000
114	1978	chronic	hatons E=30-250ke	Lognormal	0 017	4 000 4 000
	1978 1979	chronic chronic	hotons E=30-250ke	Lognormal Lognormal	0 017 0 017	4 000 4 000 4 000
114 115	1978	chronic	hatons E=30-250ke	Lognormal Lognormal	0 017	4 000 4 000
114 115 116	1978 1979 1980	chronic chronic	hotons E=30-250ke hotons E=30-250ke hotons E=30-250ke	Lognormal Lognormal Lognormal	0 017 0 017	4 000 4 000 4 000
114 115 116 117	1978 1979 1980 1981	chronic chronic chronic chronic	hotons E=30-250ke hotons E=30-250ke hotons E=30-250ke hotons E=30-250ke	Lognormal Lognormal Lognormal Lognormal	0 017 0 017 0 017 0 017	4 000 4 000 4 000 4 000 4 000
114 115 116 117 118	1978 1979 1980 1981 1962	chronic chronic chronic chronic chronic	hotons E=30-250ke hotons E=30-250ke hotons E=30-250ke hotons E=30-250ke photons E>250keV	Lognormal Lognormal Lognormal Lognormal Lognormal	0 017 0 017 0 017 0 017 0 017	4 000 4 000 4 000 4 000 4 000 4 000 4 000
114 115 116 117 118 119	1978 1979 1980 1981 1962 1963	chronic chronic chronic chronic chronic chronic	hotons E=30-250ke hotons E=30-250ke hotons E=30-250ke hotons E=30-250ke photons E>250keV photons E>250keV	Lognormal Lognormal Lognormal Lognormal Lognormal Lognormal	0 017 0 017 0 017 0 017 0 017 0 012 0 020	4 000 4 000 4 000 4 000 4 000 4 000 4 000 4 000
114 115 116 117 118 119	1978 1979 1980 1981 1962 1963 1964	chronic chronic chronic chronic chronic chronic chronic	hotons E=30-250ke hotons E=30-250ke hotons E=30-250ke hotons E=30-250kev photons E=250kev photons E=250kev photons E=250kev	Lognormal Lognormal Lognormal Lognormal Lognormal Lognormal Lognormal	0 017 0 017 0 017 0 017 0 017 0 012 0 020 0 020	4 000 4 000 4 000 4 000 4 000 4 000 4 000 4 000 4 000
114 115 116 117 118 119	1978 1979 1980 1981 1962 1963	chronic chronic chronic chronic chronic chronic	hotons E=30-250ke hotons E=30-250ke hotons E=30-250ke hotons E=30-250kev photons E=250kev photons E=250kev photons E=250kev	Lognormal Lognormal Lognormal Lognormal Lognormal Lognormal	0 017 0 017 0 017 0 017 0 017 0 012 0 020	4 000 4 000 4 000 4 000 4 000 4 000 4 000 4 000
114 115 116 117 118 119 120	1978 1979 1980 1981 1962 1963 1964 1965	chronic chronic chronic chronic chronic chronic chronic chronic	hotons E=30-250ke hotons E=30-250ke hotons E=30-250ke photons E=30-250keV photons E>250keV photons E>250keV photons E>250keV photons E>250keV	Lognormal Lognormal Lognormal Lognormal Lognormal Lognormal Lognormal Lognormal	0 017 0 017 0 017 0 017 0 012 0 020 0 020 0 020	4 000 4 000 4 000 4 000 4 000 4 000 4 000 4 000 4 000 4 000
114 115 116 117 118 119 120 121 122	1978 1979 1980 1981 1962 1963 1964 1965 1966	chronic	hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke photons E>250keV photons E>250keV photons E>250keV photons E>250keV photons E>250keV	Lognormal	0 017 0 017 0 017 0 017 0 012 0 020 0 020 0 020 0 020	4 000 4 000 4 000 4 000 4 000 4 000 4 000 4 000 4 000 4 000
114 115 116 117 118 119 120 121 122 122	1978 1979 1980 1981 1962 1963 1964 1965 1968 1967	chronic	hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke photons E=250keV photons E=250keV photons E=250keV photons E=250keV photons E=250keV photons E=250keV	Lognormal	0 017 0 017 0 017 0 017 0 012 0 020 0 020 0 020 0 020 0 020	4 000 4 000
114 115 116 117 118 119 120 121 122 123 124	1978 1979 1980 1981 1981 1962 1963 1964 1965 1966 1967	chronic	hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke photons E>250keV photons E>250keV photons E>250keV photons E>250keV photons E>250keV photons E>250keV photons E>250keV photons E>250keV	Lognormal	0 017 0 017 0 017 0 017 0 012 0 020 0 020 0 020 0 020 0 020 0 020 0 020	4 000 4 000
114 115 116 117 118 119 120 121 122 122	1978 1979 1980 1981 1962 1963 1964 1965 1966 1967 1968 1969	chronic	hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke photons E>250keV photons E>250keV photons E>250keV photons E>250keV photons E>250keV photons E>250keV photons E>250keV photons E>250keV photons E>250keV photons E>250keV	Lognormal	0 017 0 017 0 017 0 017 0 017 0 012 0 020 0 020 0 020 0 020 0 020 0 020 0 020	4 000 4 000
114 115 116 117 118 119 120 121 122 123 124 125	1978 1979 1980 1981 1981 1962 1963 1964 1965 1966 1967	chronic cnronic chronic	hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke photons E>250keV photons E>250keV photons E>250keV photons E>250keV photons E>250keV photons E>250keV photons E>250keV photons E>250keV	Lognormal	0 017 0 017 0 017 0 017 0 012 0 020 0 020 0 020 0 020 0 020 0 020 0 020	4 000 4 000
114 115 116 117 118 119 120 121 122 122 123 124 125 126	1978 1979 1980 1981 1962 1963 1964 1965 1966 1967 1968 1967 1969 1970	chronic cnronic chronic	hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke photons E=250keV photons E=250keV photons E=250keV photons E=250keV photons E=250keV photons E=250keV photons E=250keV photons E=250keV photons E=250keV photons E=250keV	Lognormal	0 017 0 017 0 017 0 017 0 012 0 020 0 020 0 020 0 020 0 020 0 020 0 020 0 020 0 020	4 000 4 000
114 115 116 117 118 119 120 121 122 123 124 125 126 127	1978 1979 1980 1981 1962 1963 1964 1965 1966 1967 1968 1969 1969 1970	chronic	hotons E=30.250ke hotons E=30-250ke hotons E=30-250ke hotons E=30-250kev photons E>250kev photons E>250kev	Lognormal	0 017 0 017 0 017 0 017 0 017 0 012 0 020 0 020 0 020 0 020 0 020 0 020 0 020 0 020 0 020	4 000 4 000
114 115 116 117 118 119 120 121 122 123 124 125 126 127	1978 1979 1980 1981 1962 1963 1964 1965 1968 1969 1969 1970 1971 1972	chronic	hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke photons E>250keV photons E>250keV photons E=250keV photons E=250keV	Lognormal	0 017 0 017 0 017 0 017 0 017 0 012 0 020 0 020	4 000 4 000 6 000
114 115 116 117 118 119 120 121 122 123 124 125 126 127 128	1978 1979 1980 1981 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973	chronic cnronic chronic	hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke photons E=250keV photons E=250keV	Lognormal	0 017 0 017 0 017 0 017 0 012 0 020 0 020	4 000 4 000 6 000
114 115 116 117 118 119 120 121 122 123 124 125 126 127	1978 1979 1980 1981 1962 1963 1964 1965 1968 1969 1969 1970 1971 1972	chronic	hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke photons E>250keV photons E>250keV photons E=250keV photons E=250keV	Lognormal	0 017 0 017 0 017 0 017 0 017 0 012 0 020 0 020	4 000 4 000
114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130	1978 1979 1980 1981 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973	chronic cnronic chronic	hotons E=30.250ke hotons E=30-250ke hotons E=30-250ke photons E=250keV photons E=250keV	Lognormal	0 017 0 017 0 017 0 017 0 012 0 020 0 020	4 000 4 000 6 000
114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 130 131	1978 1979 1980 1981 1962 1963 1964 1965 1968 1969 1970 1971 1972 1973 1974	chronic	hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke photons E>250keV photons E>250keV photons E=250keV photons E=250keV	Lognormal	0 017 0 017 0 017 0 017 0 017 0 012 0 020 0 020	4 000 4 000
114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130	1978 1979 1980 1981 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975	chronic	hotons E=30.250ke hotons E=30-250ke hotons E=30-250ke hotons E=30-250ke photons E=250keV photons E=250keV	Lognormal	0 017 0 017 0 017 0 017 0 017 0 012 0 020 0 000 0 000	4 000 4 000
114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132	1978 1979 1980 1981 1961 1963 1963 1964 1965 1966 1967 1971 1972 1973 1974 1975 1976 1977	chronic	hotons E=30.250ke hotons E=30-250ke hotons E=30-250ke photons E=250keV photons E=250keV	Lognormal	0 017 0 017 0 017 0 017 0 017 0 012 0 020	4 000 4 000
114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132	1978 1979 1980 1981 1961 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976	chronic	hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke photons E=250keV ph	Lognormal	0 017 0 017 0 017 0 017 0 017 0 012 0 020	4 000 4 000
114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132	1978 1979 1980 1981 1961 1963 1963 1964 1965 1966 1967 1971 1972 1973 1974 1975 1976 1977	chronic	hotons E=30.250ke hotons E=30-250ke hotons E=30-250ke photons E=250keV photons E=250keV	Lognormal	0 017 0 017 0 017 0 017 0 017 0 012 0 020	4 000 4 000
114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134	1978 1979 1980 1981 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1976 1976	chronic	hotons E=30.250ke hotons E=30-250ke hotons E=30-250ke hotons E=30-250kev photons E>250kev photons E>250kev	Lognormal	0 017 0 017 0 017 0 017 0 017 0 012 0 020	4 000 4 000
114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132	1978 1979 1980 1981 1961 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976	chronic	hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke hotons E=30.250ke photons E=250keV ph	Lognormal	0 017 0 017 0 017 0 017 0 017 0 012 0 020	4 000 4 000

OTHER ADVANCED FE	ATURES	No. 20 Personal Property and	CLAL SHATS SOCK
Sample Size	Random Sead		
2000	99		STATE OF
User Defined Uncertaint	y Distribution		NY SERVICE
Dose Distribution Type	Parameter 1	Parameter 2	Parameter 3
Locnomial	1.000	1.000	0.000

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